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**Promoting Cognitive Complexity of Direct Care Workers in Adolescent
Residential Treatment: A Deliberate Psychological Intervention**

A Dissertation

Presented to

The Faculty of the School of Education

The College of William and Mary

In Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

by

Harry Jones Keener

November, 2006

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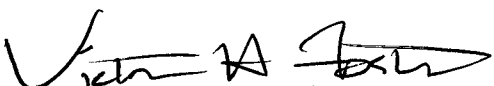
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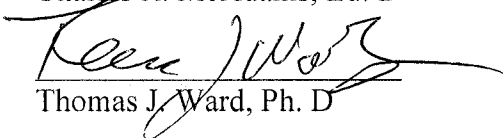
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A bold venture is not a high-blown phase, not an exclamatory outburst,
but arduous work. A bold venture, no matter how rash, is
not a boisterous proclamation but a quiet
dedication that receives nothing in advance
but stakes everything.
- Soren Kierkegaard

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Abstract

Direct care workers in adolescent residential treatment face many challenges. Adolescents who are placed in Residential Treatment Centers (RTCs) are resistant to therapy and engagement with caregivers. Most RTCs attempt to foster positive relationships between the adolescents and direct care staff as part of their treatment programs. Training for direct care workers is often haphazard, non-existent, or inadequate to meet the needs of the adolescents in treatment. Training that provides knowledge, skills, and awareness in areas pertinent to residential treatment is needed. Research on cognitive developmental theory provides a useful framework for structuring such a training program.

Two groups of counselors were assessed by three instruments: The Defining Issues Test-II, The Paragraph Completion Method, and the Professional Quality of Life Scale Revision IV. The experimental group composed of direct care workers in residential treatment underwent a four month training program utilizing the Deliberate Psychological Education model. The comparison group composed of youth counselors did not participate in the training program. No significant differences were found between the two groups from pre to post test on the three instruments.

Journals from the experimental group support the utility of the training program. The training program provides a useful template for structuring similar training programs with direct care workers in adolescent residential treatment. Despite the lack of significant findings, the cognitive developmental framework represents an innovative approach to training direct care workers.

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CHAPTER ONE

INTRODUCTION

Statement of the Problem

Residential Treatment Facilities (RTCs) provide specialized counseling services to at-risk youth manifesting both interpersonal and intrapersonal problems (Sams, 2003; Naitove, 2002). The direct care worker has the majority of day to day interactions with the youth and therefore the greatest responsibility for treatment success (Tally, 2000). Direct care workers become the most influential adult role models in the child's life during this treatment regimen. Interacting with the youth and being a significant adult role model is difficult given the presenting problems of the youth. These problems include disruptive behavior at school or home, depression, anxiety, bipolar disorder, post-traumatic stress disorder, aggressive acting out towards self and others, and traumatic symptoms from physical, emotional, or sexual abuse (Fekaris, 2004).

According to the Child Welfare League of America (2002), greater than 100,000 youths reside in residential treatment and this number is steadily increasing (Naitove, 2002; Chase-Fekaris, 2004). Other researchers assert that the population served by RTCs is much higher (Buell, 1999). The Child Welfare League of America noted that all out of home placements for adolescents in 2002 totaled 524,560, which represented an increase from 2001 (CWLA, 2002). These placements include residential group homes, foster homes, institutions, and relative and non-relative foster homes. Direct care workers in these settings provide the therapeutic relationship vital to positive treatment outcomes. Regrettably, direct care workers suffer from high rates of burnout and job turnover which

constitute a serious crisis in residential treatment (Mann-Feder & Savicki, 2003; Treaby, 2001).

Daily contact with emotionally disturbed, sometimes aggressive youth is both stressful and physically taxing (Di Raddo, 2003). Compassion fatigue can result from daily contact with adolescents from trauma laden backgrounds (Stamm, 2005). Compassion fatigue and burnout from prolonged stress are causative factors in the amplified rates of burnout and turnover in child care workers (Evans, Bryant, Owens, & Koukos, 2004). Nationally, studies show that over 50% of direct care staff leave a facility before completing one year of employment and over 20% leave within 3 months (Di Raddo, 2003; Evans et al., 2004). A similar survey of community residential facilities placed the turnover rate from 55% to 75% (Larson & Larkin, 1992, as cited in Doom, 1999). The retention of staff becomes problematic, leading to decreased quality of treatment for the youth (Gable & Halliburton, 2003). The child care profession has responded by focusing on the training of direct care workers (Krueger, 2002; Treaby, 2001).

Public and private training programs have been initiated (Krueger, 2002). Select college and universities now offer degree programs in child care education. Despite these advances, turnover and burnout of direct care staff remain a crisis in the residential treatment field (Feader & Savicki, 2003). The increased availability of training has not significantly impacted the turnover and burnout conundrum. Krueger (2002) states that currently "most child and youth care workers in the United States and various parts of Canada have not received prior preparation for their jobs and/or adequate on the job training" (p.18). Training then becomes a useful focus for addressing feelings of

inadequacy and frustration that can demoralize direct care workers. When not addressed, these feelings can initiate a vicious cycle leading to burnout and eventual leaving of the profession.

This focus on staff training is due to the importance of residential treatment and its usefulness in treating at-risk youth (Sams, 2003; Penn, 2000). The relationship between the direct care worker and the youth appears to account for the most variance in these positive treatment outcomes (Tally, 2000; Gable & Halliburton, 2004). Thus, the direct care worker is crucial to successful treatment outcomes. The crucial role of the direct care workers has been described by Jacobs (1995, p.38) as being “multifaceted and demanding” (as cited in Penn, 2000). The complex and difficult nature of child care work makes training highly important. The following section will provide a brief description of direct care workers and their role in residential treatment to highlight the need for quality training. The implications of burnout and compassion fatigue amongst direct care workers will be discussed.

Direct care workers and their roles

Over 200,000 direct care workers are employed in the United States (The Arc of the United States, 1999). Despite this large number, no universally accepted staffing standards exist for RTCs (Chase-Fekaris, 2004). Direct care staffs come from a variety of educational, cultural, and professional backgrounds. Recruitment, training, and minimum standards for potential employees are variable and flexible. Direct care staffing requirements are distinct from other providers who administer services such as clinical psychotherapy (individual, family, or group), case management, and pharmacotherapy, as these individuals are typically licensed through the state and/or their

professions licensing board. Conversely, direct care positions tend to be filled by mental health trainees, college students, or those possessing a high school degree or its equivalent (Sams, 2002).

One study showed that only 26% of direct care workers hold a college degree and 28% lack any college experience whatsoever (Buell, 1999). This study examined the broad spectrum of child care workers, so caution must be used in generalizing the results. However, it highlights the lack of collegiate education among child care workers. Penn (2000) states “It has been often noted that staff at RTCs are generally untrained in areas of psychotherapy and child development” (p.19). This deficiency of education is disconcerting given numerous studies highlighting the link between educational level and quality of care in child care settings (Buell, 1999). Training then becomes an important focus for improving the quality of youth care.

Despite the demonstrated lack of training and preparation for their jobs, direct care workers hold a vital role in the treatment milieu. Residential treatment rests on the premise that the interactions between staff and adolescents functions as a “corrective emotional experience” and repairs relational functioning. This relational component is a part of most, if not all, residential treatment modalities. Additionally, direct care workers have many other duties that vary with the specific treatment setting. These include setting and maintaining routines, enforcing structure and acting as disciplinarians, cooking meals, doing laundry, conducting study periods, providing recreational activities, and dispensing medications. Much is expected of direct care workers, and to their credit they labor under a system of sub-standard salaries, little chance for professional

advancement, and limited benefits (Krueger, 2002). These stressful conditions often result in compassion fatigue and burnout.

Compassion Fatigue and Burnout

Researchers in the field of trauma have been slow to recognize the effect that so-called “vicarious trauma” and “direct trauma” have on those in the helping professions. However, evidence is accumulating regarding the harmful effects that front line helping professionals, such as direct care workers, experience (Stamm, Varra, Pearlman, & Giller, 1997). Stamm (2005) argues that conclusive evidence points to the existence of trauma resulting from immersion in the role of a helper and the cumulative stress and strain that such a role places on an individual. Compassion fatigue is another name for this phenomenon and has implications for the field of residential treatment. Direct care workers are exposed to vicarious trauma through their day to day interactions with at-risk youth.

Working in adolescent residential settings is challenging, stressful, and physically draining (Naitone, 2000; Sams, 2002). Defiant, rude, disrespectful, and verbally or physically aggressive outbursts are difficult for staff to tolerate for extended time periods. The trauma filled backgrounds of many at-risk youth result in relational difficulties with adults making the job even more strenuous. Caregivers may manifest signs of compassion fatigue due to the intimate nature of their work with primary trauma victims (Stamm et al., 2002). Compassion fatigue leads to burnout and vice-versa.

Burnout is related to compassion fatigue in the resultant symptoms, but each describes a separate area of functioning (Stamm, 2005). Burnout results from excessive and continuous stress leading to physical and emotional exhaustion, inability to work,

meet expectations, concentrate, and for caregivers, a lowered quality of care (Wertzler, 2003). Debilitating symptoms such as anxiety and depression and increased risk of abusing alcohol and drugs lead to a decrease in the quality of care and an increased likelihood for leaving the child care profession (Sgaglio, 2003). The causative factors of burnout are certainly present in RTCs (continual stress, low pay, frustration) and are exacerbated by poor training and lack of administrative support for the direct care staff (Wertzler, 2003).

Compassion fatigue describes a syndrome effecting care-givers who are routinely exposed to traumatic events through their work with those who experience the trauma first-hand (Lynch, 1999). The caregiver experiences overwhelming stress and emotional toll from strongly desiring to help and give comfort to those who are suffering. Unfortunately, compassion fatigue may result in the caregiver repeatedly thinking about the traumatic events and making efforts to avoid both the painful images and feelings associated with their occupation. The symptoms result from their close work with traumatized individuals. Those who work with highly traumatized individuals and who are highly empathetic are susceptible (Lynch, 1999). Direct care workers fit these criteria.

Burnout and compassion fatigue negatively impact both the longevity of direct care workers and the quality of treatment. The dual problems of burnout and compassion fatigue with direct care workers in residential settings are two-fold; it leads to the high rate of turnover among the workers and results in what Mattingly (1981) called “the dehumanization of the caring process”, meaning that the quality of care for the

adolescents is compromised (cited in Mann-Feder & Savicki, 2003, p.337). Better training has been offered as a means of reducing compassion fatigue and burnout.

The next section will focus on another challenging aspect of residential work; the youth and their reasons for placement. The importance of training will be highlighted due to the presenting problems of the at-risk youth. Additionally, the types of residential treatment will be described.

Characteristics of Residential Treatment

Residential treatment centers share several common characteristics. Sams (2003) outlines them as: Exclusion of highly suicidal or psychotic youth, providing a therapeutic milieu, treatment team approach to each child, less reliance on medical staff than inpatient hospital settings, less emphasis on the medical model of psychiatric problems, and length of stay typically not longer than two years. Modality of treatment varies greatly amongst RTCs. Children who do not fit this profile are seen in more secure settings such as hospitals.

Lynne and Wilson (1992) identify four main treatment approaches administered by RTCs; peer-cultural, behavioral, psychoanalytic, and psycho-educational (as cited in Sams, 2003). The peer-cultural model encourages interactions between youth to improve their ability to have appropriate peer relationships. The behavioral model uses operant conditioning in the form of positive and negative reinforcement to improve youth behavior. The psychoanalytic approach is the oldest and espouses the staff/child relationship as being therapeutic (Chase-Fekaris, 2004). Finally the psycho-educational approach encourages a teacher student atmosphere where learning takes place through a didactic method. These approaches are not exclusive, meaning that RTCs often blend

elements of all four within their therapeutic milieu. Many programs utilize a behavioral modification system with the adolescents to facilitate compliance within the RTC.

There is much variance in the race, culture, and ethnicity of these adolescents in RTCs. However, they are typically males of minority descent (i.e. non-White European) from low socioeconomic backgrounds (Chase-Fekaris, 2004). According to the Child Welfare League of America (CWLA), 60% of the children in the United States are Caucasian while 40% are African-American, Hispanic, Asian, American Indian, or other (2002). However, children of non-white status are disproportionately represented in out of home placements. Non-white children account for 59% of out of home placements while Caucasian children account for 39% (CWLA, 2002). In view of these troubling statistics, the CWLA in 2003 released a report to affirm their commitment to further study of the complex social, financial, racial, and cultural factors that may interplay to result in this disparity. Regrettably, direct care workers receive little multicultural training which may exacerbate the problem further (Chase-Fekaris, 2004).

Additionally, these youths encompass a wide variety of behavioral and emotional problems. These include aggression, violence, inability to form appropriate peer relations, or anti-social behavior, anxiety, depression, conduct disorders, the spectrum of developmental disorders (i.e. Autism, Aspergers, Pervasive Developmental disorders), and Attention Deficit disorder with and without hyperactivity (Sams, 2003). The seriousness of psychiatric disorders amongst residential youth illustrates the importance of staff training. Direct care staffs need an array of skills to work with these adolescents. Multicultural education and training appears to be an especially overlooked area of staff development.

Cost of residential treatment

Adolescent residential treatment costs from twenty one to eighty four thousand per child a year (Florasheim, Behling, South, Fowles & DeWitt, 2004). The emotional and financial impact on their parents and society prior to treatment is estimated to be higher. Further, delinquent youths not helped in residential treatment exhibit chronic criminal behaviors as adults (Naitone, 2002; Sams, 2003; Chase-Fekaris, 2004). Training to work with this difficult and often times resistant population is important for direct care workers to improve treatment outcomes and the quality of care. However, the training for direct care workers is all too often haphazard, sporadic, or non-existent (Penn, 2000). The result is negative consequences for both the youth in treatment and the direct care workers.

The following sections will discuss training of direct care workers in residential settings and the implications for both the adolescents and the direct care workers.

Training Importance

Recruitment, training, and maintaining of minimum hiring standards for direct care workers varies by the facility in which they are employed (Penn, 2000). Direct care workers often are forced to learn “on the job”. Training may be limited and lack comprehensiveness. Finally, despite the varied racial and cultural backgrounds of the adolescents, “little attention has been given to cultural issues” in preparing and training the direct care staff (Chase-Fekaris, 2004, p.31). Direct care workers need adequate training to ready them for this challenging therapeutic milieu.

The complex tasks that direct care workers perform cannot be over emphasized. Direct care workers must form therapeutic relationships with the adolescents. Further,

they provide structure and discipline to the youth's daily routines. Finally, direct care workers often "live in" the environment making their task job even more difficult. These tasks require the direct care worker to have the ability to "read and flex" with the environment (Foster & McAdams, 1998). This means they need the ability understand the nuances and contexts of what is happening around them and then make pro-active decisions based on this information. Direct care workers need to adapt to the environment and access a wide range of skills to be successful caregivers.

Such abilities are vital to the success or failure of an individual when placed in a new role in an unfamiliar environment (Sprinthall, 1994). Many direct care workers are unfamiliar with the environment, have no prior experience to draw on, and must depend on their training to provide the knowledge and skills to adapt successfully to the treatment environment. Unfortunately, training is inadequate to meet the needs of the direct care workers (Doom, 1999). One immediate consequence is a feeling of inadequacy and incompetence. Burnout results when stress, frustration, and feelings of inadequacy for the task begin to overwhelm the direct care worker (Sgaglio, 2003). A vicious cycle ensues where the quality of care suffers due to the attendant feelings of burnout (depression, anxiety, despondency). Prolonged burnout and stress lead to high turnover rates, reduced quality of care, and the loss of promising workers (Mann-Feder & Savicki, 2003).

A New Approach

A new framework for training direct care workers is needed given the shortcomings in current training models and the inherent challenges faced by the workers. Numerous authors have highlighted both the critical importance of direct care

staff in the success of residential treatment and the pertinent concerns regarding their training and competency (Beker & Meier, 1981; Krueger, 2002; Frensch & Cameron, 2002; Chase-Fekaris, 2004). What is clear from these authors is that residential treatment continually confronts problematic trends relating to staffing, including high levels of burnout and compassion fatigue, high turnover rates, and inadequate training to meet the challenges posed by the at-risk adolescents (Raddo, 1998). Penn (2000) argues that direct care staff “who have the most contact with child are the most ill-prepared to manage the problems” that this challenging clinical population manifest (p.19). The relationship between high staff turnover rates and lowered quality of treatment is a glaring problem. Current training models appear to have had little impact on the continued high rates of burnout and turnover (Svaglio, 2003).

A framework for training based on cognitive developmental theory is both applicable and relevant. Cognitive developmental theory rests on a solid foundation of theory, research, and practice (Sprinthall, Peace, & Kennington, 1996). The theory posits that human beings grow in their cognitive complexity based on the quality of their interactions in their social environments. Increasing cognitive complexity has been associated with more complex, flexible, and adaptable responses to one’s environment.

Bernard and Goodyear (2004) found that increased cognitive growth is manifested in greater capacity for counseling tasks. These tasks are directly applicable to direct care workers in RTCs who are attempting to provide a therapeutic relationship to the youth. These skills include increase in empathy and compassion, increased ability to focus on the needs of their clients, and a reduction in prejudice (Bernard & Goodyear, 2004). Other researchers have offered that increased cognitive growth improves the ability to

adapt and flex to a rapidly changing, shifting environment such as found in residential treatment (Foster & McAdams, 1998). Direct care workers would benefit from a training model that would increase their ability to respond to the treatment environment. A training program would ideally focus on the domains of moral development and conceptual complexity.

Moral development

Increasing moral development leads to more adequate defining of moral situations and more appropriate behavioral responses and improvement in relational acuity (Rest, Narvaez, Bebeau, & Thoma, 1999). The residential environment offers moral dilemmas in terms of navigating relationships with fellow staff members, weighing the needs of the majority of the youths versus the needs of an individual resident, and forming appropriate relationships with the youths (Shealy, 1996). Moral development provides a framework of cooperation and direct care workers must adapt to an environment where cooperation with others is of paramount importance.

Conceptual Complexity

Conceptual complexity is equally valid to this undertaking. Conceptual complexity is the progressive organization of construct into systems that an individual uses to organize, categorize, and mediate their response to their environment (Page, 2000). These systems become the “lens” through which reality is viewed, processed, and filtered. Promoting conceptual complexity allows for more adaptable responses to the environment, contributes to more flexibility in problem solving ability, and in one study was associated with an increase of internal locus of control (Page, 2000). Locus of control indicates how one conceptualizes their ability to influence change in the

environment around them. Direct care workers are daily faced with the challenge of promoting change in the treatment milieu.

Purpose of the Study

The purpose of this study is to empirically determine the efficacy of conducting a cognitive developmentally based training program for direct care staff in a RTC. The program will focus on increasing the knowledge, skills, and cognitive complexity with the goal of improving the RTC staff's ability to structure and sustain relationships with the youth. The literature makes it clear that the relationship between the direct care staff and child accounts for a substantial amount of variance in the outcome of treatment (Tally, 2000). The demonstrated shortcomings in training and preparing staff for dealing with this highly challenging population give relevance to a new training model. Cognitive developmental theory offers solid empirical evidence to support its use and efficacy in making a real difference in RTCs.

Definitions of Terms

Moral Development. Moral development is defined as a stage theory describing the manner in which a person reasons out moral dilemmas. It is based on Kohlberg's theory of moral development (1981) and reflects a person's moral thinking and the values associated with their moral decision-making. There are six stages of moral development, divided into three stages. The three levels are: Preconventional, Conventional, and PostConventional. Moral development is assessed using the Defining Issues Test-II (DIT), created by James Rest (1988).

Conceptual Level Development. Conceptual Level Development stems from Conceptual Systems Theory (Harvey, Hunt, & Schroeder, 1961) and is a theory of personality

development. Conceptual Level describes a person on a continuum of increasingly abstract thinking, dependence moving to interdependence, dualistic thinking to more relativistic thinking, and increased ability to process complex stimuli from their environment (Brendel, 1996). The Paragraph Completion Method (PCM) is used to assess Conceptual Level.

Direct Care Worker. There are many titles and definitions for direct care worker, including houseparent, youth counselor, child care worker, etc. They are interchangeable. The term “direct care worker” refers to individuals who are responsible for a variety of duties including: Housework, meals, laundry, dispensing medication, homework, transportation, recreation, and creating a therapeutic environment. Salaries vary but are typically low. Benefits such as health insurance, dental, vision, retirement plans vary but are typically limited. The job is considered highly stressful and the rate of turnover and burnout among direct care workers is very high. Direct care workers require at a minimum, a high school degree or equivalent, but often require a college degree. Direct care workers either live in the facility or do shift work.

Residential Treatment Centers (RTCs). RTCs is an umbrella term for communal home environments where youths from abusive, disadvantaged, or neglectful homes both live and learn. The homes attempt to provide a safe, nurturing, trusting environment where youth can access their full potential to succeed as adults. Typically, RTCs attempt to maintain connections to the family of the residents when appropriate. Admission standards vary, but RTCs will usually not work with youth suffering from psychotic episodes, those youths who are actively suicidal or homicidal, those suffering from active substance dependence, and those with severe and pervasive developmental disorders.

Compassion Fatigue. Compassion fatigue is a term for vicarious trauma that results from front-line mental health workers who are exposed to the trauma of those they work through counseling and interacting with them (Stamm, 2005). The symptoms, similar to PTSD (nightmares, numbing of feeling, intrusive thoughts) can cause difficulty for mental health workers (such as direct care workers) to discharge their work duties (Stamm, 2002).

Burnout. This term indexes a condition where one feels powerless and frustrated by one's ability to enact change in the working environment (Jackson, 2004). Feelings of pessimism, cynicism, physical somatic complaints (headaches, exhaustion, and depression) and employee turnover may result.

Compassion Satisfaction. Compassion satisfaction indexes the amount of personal fulfillment and happiness one derives from their work (Stamm, 2005). Higher feelings of compassion satisfaction may serve a protective factor from feelings of burnout and compassion fatigue.

Deliberate Psychological Education Model (DPE). Educational model developed by Sprinthall and Mosher (1978), to promote cognitive complexity across a variety of domains. These include moral development, conceptual complexity, and ego development. The key components include a significant role-taking experience, support with challenge, guided reflection, continuity of the experience, and a fine balance between being supported in the experience and the amount of challenge of the role-taking experience.

Research Hypotheses

This study assessed the moral development, conceptual level development, compassion fatigue, burnout, and compassion satisfaction of a sample of direct care workers who underwent a DPE training program. They were pre and post tested on the measures and compared to a sample of one on one counselors/direct care workers who did not participate in the training. The following hypotheses were advanced:

1. Direct care workers who participated in the training will have significantly higher levels of moral development than the comparison group at the conclusion of the study.
2. Direct workers who participated in the training will have significantly higher levels of conceptual level development than the comparison group at the conclusion of the study.
3. Direct care workers who participated in the training will have significantly lower levels of compassion fatigue and burnout than the comparison group at the conclusion of the study.
4. Direct care workers who participated in the training will have significantly higher levels of compassion satisfaction than the comparison group at the conclusion of the study.

Limitations of the Study

This study was limited by the following:

1. Subjects for both the experimental and comparison groups were from the same organization and may have had contact with one another thus causing interactional effects.
2. Several direct care workers were fired or resigned their position during the study which limits the variability of the scores and the power of the research design.

3. Pre-existing conditions in both the treatment and comparison groups could have accounted for any significant changes noted on the pre and post test administration of the instrument.

Organization of the Study

Chapter two contains a review of the literature related to direct care workers in residential settings, training of direct care workers, cognitive development, moral development, conceptual level development, compassion fatigue, compassion satisfaction, and burnout. Chapter three details the experimental/comparison group's demographics, the design of the study, the instrumentation, and the methodology. Chapter four outlines the training program implemented. Chapter five provides a summary of the data analysis of the Paragraph Completion Method, The Defining Issue Test-II, and the Professional Quality of Life IV-R. Chapter six offers conclusions and implications of the study and recommendations for future research. Appendices provide copies of the forms and instruments where available.

CHAPTER II

LITERATURE REVIEW

The purpose of this study is to examine the effects of a Deliberate Psychological Education (DPE) model to promote cognitive complexity in a sample of direct care workers in a residential treatment facility. More specifically, the direct care workers will be exposed to a 16 week intervention program designed to promote their moral and conceptual level development. Additionally, the participants will be assessed to determine their felt sense of job burnout, level of exposure to trauma, and job satisfaction. The training model was based on cognitive developmental theory. The following section will provide an introduction to this framework.

Cognitive Developmental Theory: An Introduction

Cognitive developmental theory holds promise for being a theoretical framework to inform a training program for direct care workers. Cognitive developmental theory has a strong foundation of research, theory, and practice (Sprinthall et al., 1996). Richardson, Foster, & McAdams (1998) state “The fundamental premise of cognitive developmental theory is that reasoning and behavior are directly related to the level of complexity of psychological functioning” (p.414). Increasing cognitive complexity results in a wider repertoire of thinking and behavior that may be more functional and adaptable to one’s environment than prior ways of thinking and behaving (Rest et al., 1999).

The notion that “higher is better” is a central tenet of cognitive developmental theory. This concept refers to increasing levels of cognitive complexity being associated with more complex and adaptable patterns of thinking, reasoning, and subsequently behaving. Rest and Narvaez (1994) argue that as individuals achieve higher levels of

cognitive complexity, they regard their older ways of thinking as being too basic and prefer to utilize the more complex manner of understanding and responding. Increasing the cognitive complexity of direct care workers would ideally improve their reasoning and behavior in the therapeutic milieu. Cognitive developmental theory posits several domains of psychological functioning such as Jane Loevinger's theory of ego development and Fowler's work on spiritual development. Perry hypothesized a domain of intellectual development.

Two domains with ramifications for direct care workers are Kohlberg's domain of moral development and Hunt's model of conceptual complexity. The domains of moral development and conceptual complexity have been the focus of much research.

Kohlberg conceptualized the domain of moral development (Thoma & Rest, 1999). This domain examines the reasoning employed when confronted with a moral dilemma. In essence, it presents a stage model for moral decision-making. However, moral development research has expanded to consider how moral reasoning influences one's behavior and interactions with others. Further, research has shown that increasing levels of moral development are associated with increased capacity to form and maintain relationships as well as increased ability to be empathetic (Rest et al., 1999). This facet is important to direct care workers with the demonstrated significance of the relationship formed between themselves and the at-risk youth.

Hunt's (1975) model of conceptual complexity is equally important to direct care workers. This domain describes how one processes and integrates information from one's environment. Hunt offered a stage model based on conceptual level and behaviors exhibited at each level. An important contribution of Hunt was his idea of a

developmental matching model (Lawson & Foster, 2005). This notion has been adapted to the Deliberate Psychological Education model to promote cognitive complexity.

Promoting cognitive complexity through Deliberate Psychological Education

Sprinthall and Mosher (1978) created the Deliberate Psychological Education model (DPE) to provide an environment to facilitate growth within the aforementioned cognitive domains. Evidence exists to support the use of the DPE model to promote cognitive development (Foster & McAdams, 1998; Howland, Sprinthall, Locke, & Faubert, 1998, Morgan). The model has promoted cognitive complexity in such diverse populations as nurses (Duckett & Ryden, 1994), teachers (Change, 1994), physicians (Self & Baldwin, 1994), and other diverse sample populations (Rest & Narvaez, 1994).

This model entails 5 important components: 1) A significant role-taking experience such as being a beginning counselor, tutoring a student, or being a direct care worker 2) Support with challenge meaning that the person is both challenged but has sufficient amounts of support particularly at the beginning of the experience. 3) Guided reflection refers to the importance of having the opportunity to reflect, process, and integrate new experiences. Journaling and participating in a group provide opportunities for guided reflection. 4) Balance refers to the need for a balance between support and challenge in the experience. 5) Continuity refers to a program of at least 4 months being necessary for growth to occur.

The DPE model rests on the notion of support with challenge. Too much challenge and too little support causes a person to become frustrated and the program rendered meaningless. However, Hunt's notion of an environmental mismatch suggests that cognitive growth is promoted best when matched to the developmental level of the

learner (Morgan, 1998). Deliberately mismatching environmental learning conditions (such as structure, time on task, and abstractness of presented material) changes the way one thinks and reasons and thus impacts behavior (Lawson & Foster, 2005). The DPE model presents an innovative framework for designing a training program for direct care workers.

The following sections will provide a more detailed review of the concepts first discussed in the introduction. They include: a) an overview of cognitive developmental theory and its relevance to direct care workers in residential settings b) an examination of the developmental domains of moral development and conceptual complexity and c) empirical studies supporting the use of a Deliberate Psychological Education model to increase cognitive complexity and d) an overview of compassion fatigue and burnout and e) review of current training models.

Cognitive Developmental Theory

Cognitive developmental theory presents a perspective on the growth of human cognitions and how these cognitions subsequently affect behavior. Essentially, cognitive developmental theory holds that one's behavior and thinking changes based on the development and level of complexity of the various cognitive domains (Brendel, Kolbert, & Foster, 2000). This theory espouses several distinct, yet overlapping domains of development that give meaning and breadth to the framework. These include the following: Moral development (Kohlberg), Ego development (Loevinger), Conceptual Level (Hunt), Spiritual development (Fowler), and intellectual development (Perry). For the purposes of this study, the focus will be on Kohlberg's theory of moral development and Hunt's notion of Conceptual level. This chapter is organized to give an overview of

cognitive developmental theory, the domains of moral and conceptual development, and studies that highlight research within these domains.

Overview

Cognitive developmental theory holds that one's behavior and thinking changes due to psychological growth within the aforementioned cognitive domains (Brendel, Kolbert, & Foster, 2000). Higher levels of cognitive complexity are associated with more flexible and adaptive responses to one's environment. Promoting cognitive complexity in direct care workers would ideally aid them in meeting the challenges of the residential milieu. Sprinthall (1994) argued that an individual placed in a new role-taking experience needs a framework of support with challenge and continuity of the experience to promote cognitive growth and to excel in their new role. He based his argument on existing cognitive developmental theory.

John Dewey laid the foundation for cognitive developmental theory (Sprinthall, 1978). Dewey believed that children developmentally progress through stages that are qualitatively different. He believed that children made meaning of their environment in an increasingly complex manner as they developed in cognitive complexity (Arnold, 2000). Following Dewey, the seminal work of Jean Piaget augmented existing developmental theory by focusing on the notion of intellectual development (Wadsworth, 1989). According to Piaget, growth is not automatic but dependent on the quality of the interactions between the person and their environment.

Piaget theorized that intellectual development occurred via adaptation and organization to an individual's environment (Wadsworth, 1989). Piaget believed that individuals make meaning of their environment (i.e. reality) through frameworks of

thought. These frameworks or structures are used to interpret and process their environment (Morgan, 1998). Piaget delineated adaptation into two distinct processes; assimilation and accommodation which allow human beings to adjust and modify their thinking to the ever-changing stimuli from the environment (Walker, Gustafson, & Hennig, 2001).

Assimilation is the use of existing cognitive structures to process stimuli (Wadsworth, 1989). The change of existing structures to integrate stimuli is known as accommodation. The dynamic balancing process between the two is equilibration (Walker et al., 2001). Equilibration is important because it facilitates cognitive development by either assimilating or accommodating environmental stimuli. Development occurs as new structures are added and existing cognitive structures are modified. Such development occurs through “constructive dissonance” (Sprinthall, 1994).

Constructive dissonance refers to a person being challenged to relinquish old ways of thinking and problem-solving due to environmental stimuli and experiences (Sprinthall, 1994). Anxiety results when a person is challenged to make meaning in a qualitatively different fashion than current frameworks of thinking will allow. Sprinthall (1994) maintains that developmental growth is “always painful”. The resultant anxiety (disequilibrium or dissonance) catalyzes growth by equilibration between the twin processes of assimilation and accommodation. Equilibration is essentially a “self-regulatory” balancing between assimilation and accommodation (Wadsworth, 1987). When there is too much anxiety or challenge and too little support and reflection, growth

is unlikely to occur. Direct care workers often face a similar situation of too much challenge and too little support (Penn, 2000).

Assumptions of cognitive developmental theory

Several important assumptions underlie this theory : a) The domains are best understood in terms of stages and each stage represents the current level of meaning making (Arnold, 2000) b) Human beings are intrinsically motivated to seek competence and mastery of their environment c) Stage growth is qualitative and builds upon prior stages (Sprinthall, 1978) d) Direction of development is invariant and irreversible (Rest, 1983) e) Growth is not automatic and requires interaction between the person and their environment (Sprinthall, 1978) f) Empirical support is promising that there is a consistent relationship between a persons stage and their behavior (Rest & Thoma, 1994). g) Cognitive development is universal across cultures and gender.

These assumptions underlie the domains of moral reasoning and conceptual complexity which are important to consider for direct care workers. They face many challenges in the residential treatment milieu where increased cognitive complexity could result in more adaptive responses to their environment (Foster & McAdams, 1998). Increased levels of moral development are associated with improvement in relational functioning (Rest & Narvaez, 1994; Rest et al., 1999). Additionally, it leads to more empathetic and compassionate responses in one's role as a caregiver (Catalano, Berguland, Ryan, Lonzak, Hawkins, 2002). Increasing the competence of the direct care workers may have a positive impact on high turnover rates (Sgaglio, 2003). The two domains of moral and conceptual development would be useful to target for a training program.

Moral Development

Moral development describes the decision-making of an individual around moral dilemmas and is based on the seminal work of Lawrence Kohlberg. In setting forth a rationale for his influential work on moral development, Kohlberg posited several tenets. He believed that moral development was best understood as a stage model and underlying this model was the aforementioned assumptions of cognitive developmental theory (Rest, 1994; Arnold, 2000). Kohlberg believed dilemma discussions with others, thinking alone about abstract moral justice issues, and experiential activities focused on moral issues could promote development (Binfet, 2000). Kohlberg outlined a stage model that described the conceptual framework human beings utilize to interpret moral situations in their environment and the reasoning employed to arrive at moral decisions. Based on his research, Kohlberg created a six stage model characterized by three levels of thinking; pre-conventional, conventional, and post-conventional (Arnold, 2000; Rest, 1983). This stage model is presented below.

Stages of Moral Development (adapted from Rest, 1983)

Level 1: Pre-Conventional Reasoning- The individual is ego-centric and reasons out moral dilemmas based on their own needs and wants. Avoiding punishment and taking care of one's interest is of paramount importance. Two stages exist in this level which is often characteristic of younger children.

Stage 1- At this stage the individual wishes to avoid punishment and obeys those in authority out of fear. The viewpoint is one of ego-centrism and the attainment of physical needs predominates decision-making.

Stage 2- Follows rules when it is in one's best interest. However, a dawning of awareness emerges that others have needs as well. Fairness of deals and exchanges are important. An individual makes decisions based on personal gain.

Level 2: Conventional Level- At this level an individual focuses on doing what is right based on the laws and expectations of others. The obligations and rules of society dictate the manner in which a persons reasons out moral dilemmas.

Stage 3- At this stage, a person is concerned with belonging to the group and conforming to societal norms. Conformity to the role expectations of society is important.

Relationships are valued more so than in the previous stages.

Stage 4- Doing one's duty in society guides moral reasoning in this stage. An individual begins to consider the ramifications of their decisions on wider society. Self is considered in relation to the group or society.

Level 3: The Post-Conventional Level- The individual has articulated a set of values, norms, and principles that guide their decision-making. Abstract qualities such as freedom and equality are recognized. Self is seen as both separate from and a part of the society or group.

Stage 5- Moral decisions are guided by the principles of what is best for the community and in terms of being a moral being. The welfare of the greater community guides decision-making. The individual balances both individual and social concerns in making decisions

Stage 6- Decisions are based on the principles of justice, toleration, and autonomy. One's conscience guides one's decisions rather than the norms or laws of society. This stage has been difficult to empirically validate and may exist more in a theoretical sense

than in reality. Kohlberg eventually discarded this stage due to lack of empirical evidence substantiating its existence (Rest, Narvaez, Bebeau, & Thoma, 1999).

In essence, the Kohlbergian model focuses on the increasing complexity of the meaning making of individuals. Human beings are viewed on a continuum of increasing self-complexity and self-awareness in their construction of reality. Kohlberg conducted exhaustive research into moral development and designed the Moral Judgment Inventory (MJII) to assess an individual's moral development (Rest & Narvaez, 1994). Despite Kohlberg's intensive research, criticisms were leveled at the model. An overarching critique is that Kohlberg focused too narrowly on one aspect of moral development (reasoning) and gave little attention to other facets of moral development such as the influence of interactions with family, friends, and peers (Rest et al., 1999).

Another criticism is that Kohlberg focused too narrowly on the behavior of the individual in the context of society (macromorality) and too little on the everyday interactions of individuals with family, friends, and loved ones or micromorality (Rest et al., 1999). The lack of empirical support for the existence of Kohlberg's sixth stage of moral development is another area of criticism. Further, Kohlberg posited a "hard" stage model of moral development whereby individuals proceeded in an irreversible, step-wise progression without overlapping in stages (Rest et al., 1999). Finally, Kohlberg's assessment instrument, the Moral Judgment Inventory, has been disparaged for being too arduous and cumbersome to administer.

In response to these criticisms a new instrument, the Defining Issues Test (DIT) and a revised model, The Four Component Model, were formulated to give a more balanced perspective to the moral development domain (Rest et al., 1999). The premise

of the model is that four moral processes or components lead to observable behavior. They are: a) moral sensitivity- one's ability to interpret a situation from a moral perspective b) moral judgment- choosing actions that are can be morally justified c) moral motivation- striving to behave in a morally appropriate manner d) moral character- evidencing moral persistence and courage to complete moral tasks (Rest et al., 1999). This model presents a more balanced viewpoint regarding the complexity of moral development.

These revisions brought renewed attention to the link between moral judgment and moral action. Moral behavior includes exhibiting altruism, empathy, honesty, being responsible, and respecting others (Binfet, 2000). Moral dilemma discussions essentially involve a person either in a group format or in pairs, discussing a moral dilemma (Binfet, 2000). Kohlberg believed that through discussing moral dilemmas a person's level of moral development would increase. This reasoning is based on the notion that such a discussion would cause disequilibrium or dissonance in a person (Wadsworth, 1987). This dissonance would result from a person having to make meaning of a moral dilemma that challenges the person to think in a qualitatively more complicated fashion (Walker et al., 2002). Binfet (2000) notes that "research has demonstrated the moral dilemma group intervention has been successful in promoting the moral reasoning of individuals across a variety of settings" (p.1).

However, the dilemma discussion intervention promotes moral development only half the time that it is utilized (Binfet, 2000). This has compelled researchers to study possible alternative means of promoting moral development. Another example being considered is the reflective abstraction whereby an individual engages in solitary

reflection of a moral dilemma (Binfet, 2000). This emphasizes the complex nature of the domain of moral development and the extensions that continue to the theoretical framework established by Kohlberg (Sanger & Osguthorpe, 2005).

The following section will present studies showing a link between promoting moral development and resultant increases in moral behavior. Promoting moral development in direct care workers will ideally cause changes in their behavior towards both the adolescents and to their responses within the treatment milieu.

The link between moral development and behavior

Arbuthnot and Gordon (1986) conducted a study whereby 48 delinquent and non-delinquent students were divided into a control and experimental group with the treatment group receiving a 16-20 week course of dilemma discussions (as cited in Binfet, 2000). The study found that the treatment group evidenced significantly increased moral development over the control group as well as showing significant increases in positive behavior. Positive behavior included decreases in the following: behavioral referrals, contact with law enforcement, and tardiness. Limitations to this study include a lack of a control group and the possible confounding variable that the personality or style of facilitation by the discussion leader accounted for the positive change in the youth.

Krivel-Zacks (1995) undertook a similar study with 43 elementary school students using a weekly dilemma discussion group (the experimental group), a control group with no intervention, and a placebo group which focused on discussions about matters unrelated to dilemmas (cited in Binfet, 2000). Again, the findings showed that the treatment group significantly increased over either the control or placebo groups in moral

development gains as well as noting significant decreases in anti-social behaviors within the treatment group. The treatment group evidenced increased assertion and cooperation and decreased incidences of externalizing behaviors based on teacher ratings.

Blasi (1980) conducted a meta-analytic review of 75 studies that focused on the link between moral development and moral behavior (as cited in Bienfet, 2000). This meta-analysis found a significant relationship existed in the majority of the studies (76%). The researcher found a positive correlation between moral reasoning and honesty and altruism (Morgan, 1998). Finally, non-delinquent individuals tended to be at higher stages of moral development than delinquent individuals. Caution must be used in generalizing the results as some of the studies had methodological shortcomings. However, 57 of the studies evidenced at least a modest correlation between moral reasoning and behavior.

Richardson, Foster, & McAdams (1998) undertook a study of treatment foster parents. Treatment foster parents are similar to direct care workers in that they work with challenging populations of emotionally and/or behaviorally disturbed children. The Defining Issues Test and the Adult-Adolescent Inventory were administered to a sample of 89 foster parents in Virginia who volunteered to participate in the study. The study found that higher levels of moral development were associated with more positive behavioral outcomes. Specifically, foster parents evidencing higher moral reasoning showed increased likelihood of not approving of corporal punishment, of having a better understanding of appropriate parent-child roles, and of demonstrating empathetic understanding (Richardson et al., 1996). A correlational type design has limitations;

however the results of this study support the link between moral development and behavior.

Research in moral development

James Rest has been a tireless proponent of studying, researching, extending, and revising to Kohlberg's theory of moral development (Rest, 1999). Rest and Narvaez (1999) cite the existence of comparison studies illustrating the domain of moral judgment and highlighting its importance in many diverse professions. Further, they describe studies showing that collegiate education has a significant impact in raising ones moral development (Rest & Narvaez, 1999). This has implications for direct care staff as they often do not have the benefit of a college education (Chase-Fekaris, 2004).

Interventional studies generally show significant statistical gains versus comparison or control groups (Rest & Narvaez, 1999). Finally the authors highlight that there is a link between moral development and behavior; however it is not a strong one at this time (Rest & Narvaez, 1999). It should be recognized that Thoma (1999) advocates using the U score with the Defining Issues Test which seems to hold promising in establishing a stronger, more consistent link between moral development and behavior.

Thoma (1999) examines such a link in a chapter examining the research concerning moral judgment and action. In reviewing the past literature in moral development, Thoma (1999) points out the limitations of the studies. His review highlights that relationship between moral level and moral action is relatively weak, around 10-15% of the variance. However, prior studies have had methodological shortcomings. These studies primarily used the Moral Judgment Inventory (MJII) popularized by Lawrence Kohlberg. Thoma (1999) advocates using the Defining Issues

Test to assess moral development. The DIT contains 4 components of moral decision-making whereas the Moral Judgment Inventory primarily focuses on reasoning as being at the heart of moral judgment. Thus the DIT presents a more balanced view of the complexity of moral development. Additionally, the DIT is firmly focused on the link between moral reasoning and moral action (Rest et al., 1999).

Thoma (1999) illustrates that using the DIT allows the researcher to better focus on moral action. The implication is that the DIT offers the potential for being a more effective means of exploring moral development and its relationship to moral action. Thoma (1999) came to this conclusion by undertaking a meta-analysis of studies that utilized the DIT and calculating a U-score by examining the implied and actual decisions based on the responses of the DIT. The U-score “is viewed as a measure of subjects’ reliance on justice reasoning” (Thoma, 1999, p12). The relationship between moral development and behavior was found to be stronger when this score was calculated in the meta-analysis of previous studies using the DIT.

Another proponent of moral development, Norman Sprinthall, conducted a meta-analysis that focused specifically on studies involving role-taking (1994). Role-taking refers to a crucial component of the Deliberate Psychological Education model (DPE) to promote cognitive complexity. Role-taking is the crucial activity that the participants of a DPE engage in and around which the principals of praxis, support and challenge, and guided reflection are implemented. Sprinthall (1994) conducted the meta-analysis on 11 studies that used role-taking as the foundational component of promoting growth. The instruments used in the studies were the MJII, the DIT, the Washington Sentence Completion test, or Hunt’s Paragraph Completion Method. The method employed for

calculating effect size entailed “comparing the posttest means between two groups and dividing the difference by the standard deviation of the control group” (Sprinthall, 1994, p.89). The average effect size was .85 for the MJT or DIT and 1.10 for the SCT or CL test. These scores are considered very large, very significant effect sizes. This meta-analysis illustrates the importance of having a solid role-taking experience as the linchpin in designing an intervention to promote cognitive complexity.

A study to compare moral reasoning between students at an alternative Just Community school and a traditional high school was undertaken by Kuther and Higgins-D'Alessandro (2000). A Just Community School is a setting that incorporates a developmental emphasis on moral development to promote cognitive complexity. The pair of researchers wanted to examine the relationship between moral reasoning and engagement in risky behaviors amongst the youth (Kuther & Higgins D'Alessandron, 2000). The interventional group was taken from the Just Community School while the comparison group were students from the traditional high school. The intervention sample numbered 68 with 54% being female, ranging in grade from 10 to 12. The comparison group was 122 students (46% female, 56% male). The students were predominantly Caucasian (83%) with 12% being Asian-American, 3% Latino, and 2% African-American (Kuther & Higgins D'Alessandro, 2000).

The students completed a questionnaire which assessed their frequency of engagement in a variety of risky behaviors. This questionnaire included questions used to assess their moral reasoning as it affected their decision to participate in risky behavior. The DIT was administered to assess level of moral development. The interrelationships between moral reasoning, frequency of engagement in risky behaviors,

and domain judgment were examined through several multiple regression analyses (Kuther & Higgins D'Alessandro, 2000). Multivariate analyses of variance (MANOVAs) were used to examine factors such as grade, gender, and school. The findings showed that the students at the Just Community School evidenced higher levels of post-conventional moral thinking (Kuther & Higgins D'Alessandron, 2000). In general the students saw engagement in risky behaviors not as a function of conventional or post-conventional norms but rather more personal and ego-centric ones. Although this study is limited by having a predominantly White, high SES sample population, the implications for clinicians working with youth are important. Focusing on issues related to societal norms and laws may not be effective in deterring youth from engagement in risky behaviors. Youth care workers could benefit from learning how to design intervention programs that are suitable for the developmental level of the youth in their care.

Walker, Gustafson, & Hennig (2001) sought to examine the relationship between the internal factors that indicate a transition into a higher stage of cognitive development. Specifically, a lower score on instruments measuring some aspect of developmental growth often precede movement to a higher stage and higher scores (Walker et al., 2001). The authors focused on moral reasoning development by using a longitudinal study. The sample was comprised of 64 children and adolescents who took the Moral Judgment Inventory 5 times over a 4 year period (Walker et al., 2001). There were 14 girls and 17 boys in grade 5 and 16 girls and 17 boys in grade 10 who predominantly from middle class home environments. 84% were Caucasian, 13% were Asian, 2% Hispanic, and 2% Canadian Aboriginal. The scores on Moral Judgment Inventory were scored using the

manual and a Bayesian approach was used in conjunction with standard statistical techniques to analyze the data (Walker et al., 2001)

The results supported the hypotheses of the cyclical pattern of change in developmental patterns of moral reasoning and that Bayesian techniques have utility in developmental, longitudinal studies (Walker et al., 2001). There were several limitations with this study. The authors never explained the “traditional statistical methods” used to evaluate the data. Further the authors did not go into detail about using the Bayesian technique to analyze the data. However, the authors cited references for readers interested in learning more. This method may be too complicated to be explained within the parameters of a journal article. Finally, the sample was representative of a large, Canadian city but may not be representative of a typical population of an American city. This could hurt applicability to the United States. Nonetheless, the study shows that moral development typically shows a cyclical pattern of growth which is an important consideration to keep in mind when designing studies to promote cognitive complexity.

Promoting cognitive complexity may serve as a protective factor against psychopathology (Sprinthall et al, 1996). Walker, Hennig, and Krettenauer (2000) conducted a longitudinal study to examine moral reasoning development. The trio of researchers recruited 60 children, their parents, and 60 friends/peers to engage in two types of dyadic moral discussions; parent/child and friend/child (Walker et al., 2000). The sample was predominantly middle class, White (84%) and had an equal number of boys and girls. The sample was of two equal types; from 5th grade and from 10th grade. The children were administered the Moral Judgment Inventory 4 times over the 4 year period. Solid reliability statistics and evidence of validity were reported in this study (Walker et al.,

2000). The findings showed that interactions characterized by “gentle, supportive” discussions were more growth inducing than either authoritative or purely instructive types of interactions (Walker et al., 2000). This study was limited by the predominantly White, middle class make up of the sample which limits its generalizability. However, this study points to the importance of promoting the ability of professionals and paraprofessionals to engage with youth in such a manner as to facilitate moral development. Moral development may then serve as a protective factor for children.

In setting forth a rationale for this study, the domain of moral development holds promise as a focus for training direct care staff. The results of hundreds of studies highlighted in the book, *Postconventional Moral Thinking: A Neo-Kohlbergian Approach* (Rest et al., 1999), supports the existence and relevance of the domain of moral development. Further, as the link between moral behavior and moral development is elaborated on and strengthened, it highlights implications for direct care workers in RTCs. Increasing moral development would appear to aid direct care workers in establishing and maintaining the attachment with the youth that have such a positive effect on their treatment outcome. It becomes important to focus now on another domain of cognitive development; Hunt’s conceptual level.

Conceptual Systems Theory

Conceptual systems theory focuses on the optimal teaching environment to maximize learning potential in students. Further, it has been noted that increasing levels of conceptual development seem to predict greater functioning in many areas associated with the helping professions (Bernard & Goodyear, 2004). These include increased empathy, reduction in prejudice, and greater flexibility and adaptability to the treatment

environment (Stoppard & Miller, 1985; Holloway & Wampold, 1986). These traits can aid direct care workers in navigating the challenges of their profession (Foster & McAdams, 1998).

Conceptual Systems Theory proposes that development is the result of the interaction between an individual and their environment (Morgan, 1998). This theory was first proposed by Harvey, Hunt, and Schroeder (1961) and espouses the developmental notion that conceptual growth requires optimal environmental conditions. When these conditions are lacking, cognitive growth tends to not occur. The conceptual system or domain is “the schema that provides the basis by which the individual relates to the environmental events he experiences” (Harvey, Hunt, & Schroeder, 1961, pp. 244-245 as cited in Morgan, 1998, p. 37). This domain is then reflective of how one thinks and processes information. Further it indexes how one thinks of self, of others, and how one conceptualizes the inter-relationship between self and others.

Conceptual level (CL) is a cognitive construct of Conceptual Systems Theory that focuses on the social interactions of an individual. Hunt (1975) formulated conceptual level and provided a stage model for it. Hunt (1978) described conceptual level as a “personality characteristic that describes persons on a developmental hierarchy of increasing conceptual complexity, self-responsibility, and independence” (as cited in Holloway, 1987, p. 211). Persons at higher levels are able to access a wider range of thoughts and behaviors and can therefore make a more adaptive response to their environment. Conceptual level is seen as moving along a continuum from concrete to abstract thinking and behaviors (Stoltenberg, 1981). Persons demonstrating low CL process information from their environment in a simplistic manner and show limited

ability to adapt to their environment. Individuals with high CL exhibit greater flexibility, more creativity, and have increased tolerance of stress. These are important characteristics for direct care workers in light of the high stress nature of their jobs and the need to adapt to a challenging environment. There are four stages in the model.

Hunt's Conceptual Level Stage Model (adapted from Morgan, 1998)

Individuals at stage 0.0 are characterized by having low toleration for stress and ambiguity and they process information in a very concrete manner. Individuals at stage 1.0 are concerned with behaving according to the tenets of society and information is processed in very “black or white” good or bad categories. Persons at stage 2.0 challenge absolutes and so show increased ability to give credence to nuances and contexts of a situation. They are more open to the views and opinions of others and are better able to tolerate stress, uncertainty, and ambiguity. Finally, persons at stage 3.0 process information in a highly abstract manner and evidence marked tolerance from ambiguity and stress. They recognize the interdependence between self, other, and the environment.

One of Hunt's biggest contributions to the developmental field was his notion of the conceptual level (CL) matching model for education (Lawson & Foster, 2005). Hunt posited that low CL individuals need high structure in their learning environment while high CL individuals need less structure to make gains in conceptual complexity. Hunt describes three types of environmental and CL matches: a) a match resulting in little growth such as high structure with a high CL individual b) a match that results in moderate growth such as a low CL individual and high structure c) a developmental mismatch that maximizes growth potential.

Hunt used the concept of constructive dissonance to posit a developmental mismatch whereby a learner is challenged and supported sufficiently in the learning environment to stimulate the development of more adaptive strategies (Holloway, 1987). This mismatch promotes cognitive growth (Holloway & Wampold, 1986). A one stage mis-match between a person's CL and the conditions of the learning environment is optimal while two or more stages above or below yield little growth and frustration. This principle is critical to designing interventions to promote cognitive growth. Behavior is seen as being a product of the interaction between the individual and the environment.

In summary, conceptual level describes a person on a continuum of increasing complexity of thought, increasing autonomy, increased assumption of responsibility, and improved perspective taking (Stoltenberg, 1981). Such growth would be useful to direct care workers in residential settings to allow them access to a wider range of skills to employ when working with at-risk adolescents. The following section will present empirical studies that utilized Conceptual Systems Theory.

Research on conceptual complexity

Holloway and Wampold (1986) undertook a meta-analysis to examine the relationship between Conceptual Systems Theory and the counseling process. Specifically, the authors reviewed 24 studies that looked at counselor's Conceptual Level (CL) and its effect on a counselor's performance or that investigated matching the environmental structure and the CL (Holloway & Wampold, 1986). Several hypotheses were tested: that high CL individuals would perform better on counseling related tasks, individuals in more highly structured environments would perform better, and that

individuals in an environment matched to their conceptual level would perform better on counseling related tasks (Holloway & Wampold, 1986).

The authors used the abstract database, PsycINFO to obtain pertinent studies in the years 1967 to 1983. The authors found 29 studies that included at least one of the hypotheses being tested in this meta-analysis. Five were removed from consideration due to data that was missing and being unable to contact the principal authors of said studies and request the missing data (Holloway & Wampold, 1986). This left 24 studies. The authors used a multi-factor ANOVA technique to compile the data. They calculated the effect size for CL, for the environment, and for the interaction between CL and environment (Holloway & Wampold, 1986). Three main findings emerged from this meta-analysis: matching environment to CL was supported as those individuals performed better, low CL individuals performed better in highly structured environments, and higher CL individuals performed better than lower CL individuals in counseling related tasks (Holloway & Wampold, 1986). These findings have important implications for not only teaching but for providing an optimal RTC environment that promotes cognitive growth in the youth.

It is important to consider the limitations of this study. Studies were not included in the sample where there was missing data or the studies did not focus on at least one of the research hypotheses of this meta-analysis. Therefore, this meta-analysis is not comprehensive and these studies could have changed the nature of the results. Further it is impossible from the data to know the size or demographics of the samples of the studies that were included. The sample sizes could have been too small or not be

representative of a diverse population. Many of the studies did not use counselors in their sample; therefore generalizability to counselors is limited.

However, clear implications from this study to the proposal presented on promoting growth in residential treatment workers exist. Matching the environment to the CL of the residential workers would seem to be advantageous in terms of providing an optimal environment for learning and modeling could then be utilized by the direct care workers in the residential environment. Secondly, higher CL individuals do better in counseling related tasks and residential workers often are called upon to act and react in a complex environment by using counseling skills. Promoting their cognitive complexity would seem to help them function in the complex residential treatment environment.

A meta-analysis by Stoppard and Miller (1985) examined a number of studies focusing on conceptual development and concluded that the domain has important implications for counseling. The study found significant effects for an appropriate matching of an individual to environment based on developmental level (Stoppard & Miller, 1985). It was highlighted that low conceptual level individuals in therapy seemed to benefit most from a highly structured environment (Stoppard & Miller, 1985). Extrapolating this study to direct care workers, some important implications emerge.

Increasing cognitive complexity would allow direct care workers to make more adaptable actions and reactions in the treatment milieu. Part of this adaptability would presumably be the recognition that the adolescents would receive increased benefit if the environment is matched to their developmental level. Expanding the ideas of Bruch et al. (1981, cited in Morgan, 1998) it would seem that direct care workers with increased

cognitive complexity would realize this occurrence and take steps to match the structure to the level of the residents. Ideally, this would improve treatment outcomes.

Stoppard and Gail (1987) conducted another relevant study whereby they examined the effectiveness of matching and mis-matching individuals to a certain environmental structure based on their conceptual level. The following research hypotheses were outlined: Low CL participants who received a matched structure (i.e. highly structured) were expected to show greater gains than low CL who received a mis-matched structure (low structure) and the same results were expected for high CL participants (Stoppard & Gail, 1987). The authors recruited 36 women characterized as unassertive to test their hypotheses.

The women were assessed with the Assertion Inventory and all the participants had scores on this inventory that fit the profile for not being assertive. The age range of the sample was from 20 to 52 yrs. old. No other demographic information was provided. The women were randomly assigned to either high structured or low structured assertiveness groups. A master's level clinician (the second author) led both groups. This group leader was trained in assertiveness training and routinely conducted workshops on the subject. The first author provided supervision to the group leader. The group meetings were assessed by on two scales; The Structure Rating Scale and the Therapy Rating Scale by two graduate students. Hunt's Paragraph Completion Test was used to classify the women as demonstrating either high or low CL. Several measures were used pre and post to assess assertiveness; The Assertion Inventory, The Assertion Difficulty Inventory, The Assertion Self-Statement Test-Negative. The Behavioral

Assertion Role Play Test and the Subjective Units Distress Scale which was used to assess assertion score immediately after group role-plays (Stoppard & Gail, 1987).

The researchers found that low CL clients did much better in a low structured environment than did low CL in a mismatched environment (Stoppard & Gail, 1987. No matching effects were found for high CL clients. Limitations of this study include the generalizability of the sample as little demographic information was provided. In terms of the instrumentation, information about the reliability and validity of several of the instruments was noticeably absent. Finally, one instrument had been constructed expressly for this study and had no prior empirical research to support its use.

Nevertheless, this study demonstrates the utility of matching the structure of the learning environment to the CL of the participants. It did not support the hypothesis that high CL participants would benefit from a low structure environment as posited by Hunt. In terms of my study, it has clear implication for the amount of structure that I put in place when I design my intervention. Further, direct care workers in a residential setting require adequate cognitive complexity to assess and implement programs that match the developmental needs of the youth in RTCs. Research has demonstrated that higher conceptual levels are associated with more desirable counseling behaviors which are needed to adapt and flex to the varying need of each adolescent in a RTC setting (Bernard & Goodyear, 2004).

Lawson & Foster (2005) undertook a germane study to examine the conceptual and ego development of home-based counselors. The researchers sought to bring a developmental lens to focus on the counselors who actually conduct home-based therapy of whom little research has been conducted. A sample of 407 home based counselors in

the state of Virginia was contacted and 140 of those responded. 120 of the responses were considered valid and used in this study.

The sample were administered the Paragraph Completion Method (PCM) instrument to measure conceptual level, the Washington University Sentence Completion Test (WUSCT) to measure ego development, a demographic questionnaire, and the Counselor Supervision Inventory (Lawson & Foster, 2005). Validity and reliability information was provided for the PCM, WUSCT, and Counselor Supervision Inventory. The study utilized a non-experimental design to examine the correlations between developmental levels, supervision, and demographic characteristics. Demographics of the sample were as follows: 73.3% women, 27.7% men, 60% identified themselves as Caucasians, 30% self identified as African-American, 2% Asian, 1.7 % Hispanic, and one respondent who identified as Native American (Lawson & Foster, 2005).

Several important findings emerged including that the home-based counselors in this sample are predominantly dissatisfied with the amount and quality of the supervision that they receive (Lawson & Foster, 2005). An important finding is that significant numbers of the counselors surveyed scored in the “low to moderately low” range on the measures of ego and conceptual level. The scores on conceptual level were related to the level of education of the counselors i.e. those with graduate training were in the high range. However, many home-based practitioners do not have the benefit of graduate work in counseling (Lawson & Foster, 2005).

This study indicates that home-based counselors may be ill prepared developmentally, to meet the needs of the families that they serve (Lawson & Foster, 2005). In terms of youth care workers, many of these findings are relevant. Conceptual

level is critically important for youth care workers to effectively meet the challenges of their work environment. Often these workers may not have the benefit of graduate education which has been shown to increase developmental levels. Training programs for youth care workers which are often disjointed, lacking in continuity, or non-existent will not adequately address the cognitive development of the youth care staff. In turn, they struggle to meet the therapeutic needs of the youth and the ever changing requirements of the residential treatment environment.

Page (2000) examined the link between Conceptual level and locus of control. Locus of control indexes perception of the amount of control an individual maintains over the environment. Having an internal locus of control is associated with more adaptive functioning, higher achievement, and more proactive relational functioning whereas those with an external locus of control exhibit more mal-adaptive behavioral patterns (Page, 2000). Direct care workers with higher levels of internal locus of control may be prepared to work in the challenging residential treatment environment.

Page (2000) administered two measures of locus on control and the Paragraph Completion Method (PCM) to eighty-six college students in a psychology class. The results were analyzed using univariate correlations. Results between one instrument of locus of control and the PCM showed a significant relationship exists. That is, increased conceptual level is associated with more internal locus of control. Threats to validity included poor instrument reliability and low construct validity between the two instruments measuring locus of control. Despite these limitations, the study suggests that increasing conceptual level may positively affect an individual's locus of control.

Coren and Suedfeld (1995) administered the Paragraph Completion Test (PCT) to 277 university students along with six measures of personality. The personality instruments measure various personality traits such as relational style, willingness to try new experiences, and sense of being an extrovert or introvert. Individuals at higher levels of conceptual complexity showed more empathic and nurturing tendencies in relationships and appeared more skilled at navigating social interactions (Coren & Suedfeld, 1995). They tended to have increased leadership capability. For direct care workers, such improved relational acuity could benefit them in working with at-risk youth (Shealy, 1996).

Peace (1995) conducted an interventional study which involved Hunt's conceptual level. Peace (1995) designed a field research project using an experimental group of experienced school counselors. The project consisted of two parts; the training and the actual practicum experience where the counselors saw actual clients. The group was tested pre and post in the training part and then again at the end of the practicum experience. The instruments administered were the PCM and the DIT. No demographic information on the counselors was given. Paired t-tests were used to compare the pre and post test means on the two measurements. Significance level was set at $p=.10$ as this was exploratory research. The t-tests showed significant gain on the DIT measure and non-significant gain on the PCM instrument (Peace, 1995).

This study is certainly weakened by flaws in design and sample size. The sample size was too small ($n=11$) and there was no comparison group which is needed in quasi-experimental studies. No demographic information is provided and coupled with the small sample size, it is obvious that this was a not a representative sample of counselors.

Nevertheless, this study joins a large amount of theory, research, and practice that supports the utility of using a DPE to promote conceptual growth. Particularly, for youth care workers, a training program based on a DPE model offers fresh hope for better preparing such workers to engage effectively with children desperately in need of a positive relationship in their life. This provides a useful segue into the following section on studies which utilized the DPE model to promote cognitive complexity.

Use of Deliberate Psychological Education Model to Promote Cognitive Growth

The DPE was created by Sprinthall (1978; 1994) and Mosher (1978) to be a means of promoting cognitive development. As such, it becomes a useful focal point for catalyzing growth in both counseling, counseling supervision, and educational settings. The crucial premise is that cognitive developmental growth or lack of growth depends of the quality of the interactions between the supervisee and their environment (Sprinthall, 1978). The DPE model has been successful at promoting cognitive growth across a variety of domains that impact counselors and educators (Faubert, Locke, Sprinthall, & Howland, 1996).

Recall that there are five necessary conditions that constitute a DPE. Most critical is the role-taking experience which places an individual in an environment where they are challenged to grow and change (Faubert et al., 1996). Secondly is a guided reflection on the new role-taking experience often through journaling (Faubert et al., 1996). The third component, a balance of role-taking and reflection, suggests that the individual needs to opportunity to both reflect on and process the experience (Faubert et al., 1996). Fourthly, the model requires a continuity of several months of sustained application to promote cognitive growth (Faubert et al., 1996). The final component, support with challenge,

signifies that a developmental mismatch will catalyze growth if the environment is structured one level above the current developmental level of the individual (Stoltenberg, 1981).

Research on the Deliberate Psychological Education (DPE) model

Foster and McAdams (1998) initiated a study of child care supervisors that aimed to promote their cognitive complexity. The conceptual framework for this study was Cognitive Developmental theory using a Deliberate Psychological Education model (DPE) as a means for promoting the growth. The supervisors were recruited from an organization that operates community based residential treatment services for children aged 8-18. Thirty five supervisors participated in the study that had daily contact with both staff and children. This sample was composed of 19 women and 16 men. Of this sample, 15 were African American and 20 were Caucasian ranging in age from 25-43 yrs. old (Foster & McAdams, 1998).

The DPE model was used to design a 14 week training period with seven 6hr. sessions spread over the 14 weeks. The sessions included dilemma discussions, reflections, and practice of skills useful to a supervisor (Foster & McAdams, 1998). The participants were asked to journal weekly and were given feedback on this journaling. The participants completed the following instruments: an evaluation of training, the Defining Issues Test (DIT), and the Moral Judgment Inventory (Foster & McAdams, 1998). The scores on the DIT and the Moral Judgment Inventory were evaluated using within subjects T-Tests. The subjects were pre and post tested on these measurements. The participants showed statistically significant gains at the .05 probability level (Foster & McAdams, 1998). Several limitations are apparent within this study. The lack of a

comparison group drawn from a similar residential setting limits the applicability of the findings. Secondly, the Moral Judgment Inventory is an open-ended measurement that has been critiqued for its lack of reliability and validity (Arnold, 2000). Finally, the prior experiences of the participant or the ongoing experiences of the supervisors in the residential settings could conceivably have influenced their level of moral thinking.

With these caveats in mind, this study has clear applicability for a potential study on promoting growth among direct care staff. The participants reported feeling “rejuvenated” and feeling a “renewed committed to their job” while feeling “better equipped to supervise” (Foster & McAdams, 1998). This qualitative data attests to the positive benefits of a developmentally informed model of training. Residential treatment is a difficult and complex environment to navigate and requires staff to make complex decisions very quickly. Further, training programs are often lacking in such settings leading to burnout in many workers (Chase-Fekaris, 2004). A program that enhances the ability to deal with such a complicated environment is urgently needed in RTC settings. In this study the DPE model clearly promoted this type of cognitive growth amongst the participants.

Faubert et al. (1996) instituted a similar Deliberate Psychological Education model to promote cognitive complexity amongst a different sample population; rural, African-American youth. The sample was drawn from 9th and 10th graders in public high school in central North Carolina. The majority of the families were low Socio Economic Status. Four experimental groups were created with 4 comparison groups. Ideally, the researchers sought to have 20 students in each group but there were less than 20 in some groups as they included only those students who completed both the pre and post test

measurements (Faubert et al., 1996). The program essentially involved the 10 graders serving as mentors for the 9th graders and working with these 9th graders throughout the semester in designing a science project. The semester was five months and included weekly group meetings with two graduate assistants to process the new role-taking experience (Faubert et al., 1996). The purpose of the study was to use the tutoring/mentoring process as a significant role-taking experience through which cognitive complexity would be promoted.

The 8 groups were assessed pre and post test on two measurements. They were the Washington State Sentence Completion Test (WSSCT) which measure ego development and the PIAGET which measures the cognitive domain. The WSSCT is a widely used test with good reliability and validity. The PIAGET has not been validated and this study was an attempt to establish construct validity for the instrument. Analysis of Co-Variance was used to analyze the data. Gender, school, grade, and experimental/control group were the independent variables while the pre-test SCT and PIAGET scores were used as the covariates and compared to the gain scores on the measurements. This study represented a quasi-experimental study as the participants were not randomly assigned to groups. This type of study with a pre and post test is called a non-equivalent control group design.

The results were promising and supported the utility of employing a DPE model. The experimental groups showed increased cognitive growth versus the comparison groups. There were statistically significant interactional effects between gender and group with a main effect greatest amongst males in the experimental group. The experimental groups made significant increases in ego development versus the control

groups. The most apparent limitations involve the use of the PIAGET which lacks empirical validity and reliability evidence. In terms of the research design, a threat to validity is differential selection whereby the groups may manifest pre-existing conditions that affect their scores on the measurements. In terms of my proposed study, this article supports the utility of using a DPE to promote cognitive growth using a non equivalent control group design.

Sprinthall and Scott (1989) conducted an analogous study which highlights the potential of a DPE intervention for promoting cognitive complexity. The researchers based their study on the ongoing concern that female students are not succeeding in the fields of math and science and often evidence a lack of confidence in math and science as a whole (Sprinthall & Scott, 1989). The researchers used a DPE model with a conceptual framework of cognitive developmental theory to address two important questions (Sprinthall & Scott, 1989). They were: Will the DPE promote cognitive growth amongst a sample of female high school students and increase their self confidence in math and science through their role taking experience of tutoring 4th and 5th grade female students (Sprinthall & Scott, 1989). And will the 4th and 5th grade students make significant gains both in math achievement and attribution of success (Sprinthall & Scott, 1989)

The sample of 30 high school students was drawn from a rural, small public school (Sprinthall & Scott, 1989). The students were divided into an experimental and control group, each containing 15 students. They were assigned to tutor a group of 4th and 5th grade girls selected by their teachers for low achievement in mathematics (Sprinthall & Scott, 1989).

The program lasted approximately 15 weeks (Sprinthall & Scott, 1989) to fulfill the component of continuity necessary for a DPE. The comparison group essentially received instructions from the teachers on grading papers, tutoring, and monitoring the classrooms. The experimental group received a program focusing on the following elements: tutoring, how to develop a helping relationship, how to facilitate communication with their tutees, and information on teaching math concepts and peer facilitation (Sprinthall & Scott, 1989). Additionally, the experimental group kept weekly journals about their role-taking experience and met weekly with the math teacher and the counselor to process in a seminar format the experience of being peer tutors. In this manner, the experimental group fulfilled the requirements of a DPE; a significant role-taking experience, reflection, a balance of reflection and a new role-taking experience, support with challenge, and continuity.

The instruments used to assess the effectiveness of the tutoring on the 4th and 5th graders were the California Achievement Test and the Math Attribution Scale (Sprinthall & Scott, 1989). Evidence of validity and reliability for both instruments was good. The high school students were assessed with the Defining Issues Test (DIT) to assess moral development while the Paragraph Completion Method (PCM) was used to assess conceptual complexity. Both instruments have been used in a multitude of studies and have support through extensive meta-analyses of their reliability and validity (Sprinthall & Scott, 1989).

Repeated measures of analysis of variance indicated that the experimental group improved on the PCM (though not significantly) versus the comparison group while the experimental group made significant gains versus the comparison group on the DIT

(Sprinthall & Scott, 1989). However, gain score t-tests evidenced significant improvement on both the DIT and the PCM for the experimental group versus the comparison group (Sprinthall & Scott, 1989). The elementary girls being tutored by the experimental group evidenced statistically significant gains on both the CAT and the Math Success Attribution Scale versus the comparison group (Sprinthall & Scott, 1989). This study highlights the utility of an intervention based on Cognitive Developmental theory promoting positive change in several important domains.

Limitations must be noted with this study. The attribution instrument has not been subjected to rigorous testing to support that it is resistant to either faking or the halo effect (Sprinthall & Scott, 1989). Additionally, the experimental group received extra individual attention from their tutors which could have confounded the results (Sprinthall & Scott, 1989). Further, it can be difficult to generalize the results of this study past the site in which it was conducted. It was done at a small rural high school that was public. For example, the results may have been different in a large urban setting. Finally, having males as both the tutors and tutees could yield very different results.

Yet these results illustrate the importance of a cognitive developmental framework for applying an intervention to promote cognitive complexity. The results support the assertion that a role taking experience in concert with the other elements of a DPE can result in both achievement gains and gains in self-esteem. Such results support the use of a cognitive developmental framework for the study proposed here. A cognitive developmental intervention has the potential to be a valuable training model for direct care workers where training is at best, haphazard (Chase-Fekaris, 2004). These studies highlight the significance and utility of a DPE in promoting cognitive growth.

Morgan (1998) conducted an equally important study with law enforcement trainees. Morgan (1998) co-taught a class on criminal justice to 32 law enforcement trainees who face similar challenges to direct care workers in RTCs. These challenges include: Working with a resistant population, a highly stressed work environment, and a milieu that requires a high level of adaptability and flexibility. A DPE was implemented through the curriculum of the class to promote moral development and conceptual complexity (Morgan, 1998). The results of the intervention group were examined versus a comparison group of 32 trainees not enrolled in the class. Morgan (1998) used dilemma discussions, small group work, and audio-visual aids to infuse the elements of a DPE i.e. support with challenge, reflection, balance of reflection and role-taking, and continuity. The intervention was implemented for one semester with the Defining Issues Test (moral development) and the Paragraph Completion Test (conceptual level) being administered at both the beginning and end of the intervention.

The results were promising when the intervention and comparison groups were analyzed on the two dependent measures (the DIT and the PCM) using a repeated measures multivariate analysis of variance (Morgan, 1998). The intervention group evidenced statistically significant improvement in their principled moral reasoning versus the comparison group. The intervention group improved in their conceptual level as well versus the comparison group. However, results for conceptual level should be viewed with caution as the improvement in the intervention group was not significant (Morgan, 1998).

Certainly, there were limitations to this study. Pre-existing group differences are an ever present threat to quasi –experimental studies where random selection is not used

(Gall, Gall, & Borg, 2003). This means that as random selection was not used changes in the group could be attributed to pre-existing condition rather than the effect of the treatment. However, analysis of co-variance was used in this study to control for this threat to validity (Morgan, 1998). Maturation is another potential threat to the validity of this study however; the duration of the intervention (one semester) minimizes the influence of the maturation effect. This study supports the notion that a DPE can promote improvement in cognitive complexity and therefore strengthens the rationale for the interventional study proposed here.

Finally, Brendel et al. (1996) conducted an interventional study to promote the conceptual and moral development of master's level counseling students. Counselors in training face similar challenges to direct care workers in residential treatment as both struggle to make meaning from a new and challenging experience. Thirty students participated in this longitudinal study which assessed the students three times in a two year period with the PCM (measuring conceptual development) and the DIT (measuring moral development). The results were promising as the students evidenced a statistically significant improvement in conceptual development with a large effect size attributable to the DPE program (Brendel et al., 1996).

A non-significant improvement on the moral development assessment was found. This could have been due to the lack of dilemma discussions in the curriculum or a lack of real world opportunities that would have challenged the participants to qualitatively develop their moral reasoning (Brendel et al., 1996). Counselors in training face similar issues to direct care workers such as being placed in a challenging new role for which they may not be adequately prepared.

Another area of concern regarding the preparation of direct care workers is the high rates of burnout in residential treatment staff (Chase-Fekaris, 2004). Coupled with this is the notion that direct care workers may be at increased risk for compassion fatigue due to their work with at-risk youth from trauma laden backgrounds and their desire to help the youth (Naitove, 2002). The next section will discuss these constructs.

Compassion Fatigue and Burnout

Researchers in the field of trauma have been slow to recognize the effect that so-called “vicarious trauma” and “direct trauma” have on those in the helping professions (Stamm, 2005). However, evidence is accumulating acknowledging the harmful affects that front line mental health workers, such as direct care residential staff, experience (Stamm, 2002). Stamm (2005) argues that conclusive evidence points to the existence of trauma resulting from being in the role of a helper and the cumulative stress and strain that such a role can place on an individual. Compassion Fatigue is the accepted term for this phenomenon. The following will illustrate the implications of Compassion Fatigue to the field of residential treatment.

Indeed, it has been noted by various authors that working in residential treatment with youth can be especially challenging and draining. Manifestations of acting out behavior by the youth such as being defiant, rude, disrespectful, and verbally or physically aggressive are all behaviors that are difficult for staff to tolerate for extended periods of time. Additionally, children in residential treatment often have instances of trauma in their prior backgrounds. Such trauma makes it difficult for direct care staff to engage and treat youth with already established deficits in forming attachments (Naitone, 1999). The emotionally taxing nature of the direct is partially to blame to the high rates

of turnover amongst staff in RTC. Compassion fatigue holds that the secondary trauma of helpers by virtue of their exposure to clients with horrific trauma experiences can result in serious symptoms with repeated vicarious trauma exposure (Stamm, 2005). These can include: nightmares, numbing of feelings, intrusive thoughts, and dissociating from the experiences. These symptoms can make it difficult for a direct care worker in RTC to complete a significant tenure as well as negatively impact the manner in which they engage and work with the youth. This negative impact on working ability is known as burnout (Stamm, 2005)

Burnout is related to compassion fatigue but quantifies a somewhat distinct and important area when examining the plight of youth care workers. Burnout is regarded as a condition resulting from feeling powerless and frustrated in the work setting (Jackson, 2004). Other causative factors may be organizational problems at work, inability to function work harmoniously with fellow worker, or problems with management or supervisors (Jackson, 2004). The results are similar to compassion fatigue and equally troubling; high rates of employee turnover, lowered job satisfaction, mental exhaustion, physical complaints (headaches, tiredness, digestive disturbance), poor working relationships, and feelings of pessimism and cynicism (Jackson, 2004).

Research on burnout, compassion fatigue, compassion satisfaction, & training

For these reasons, compassion and burnout merit attention in preparing youth care workers to effectively work with the youth. It has been argued that a cognitive developmental grounded training program could ameliorate the effects of compassion fatigue and burnout (Jackson, 2004). Jackson (2004) surveyed 91 first responders (paramedics, fire-fighters) to assess their level of compassion fatigue, burnout, and

compassion satisfaction. He administered the Defining Issues Test (DIT) to measure their moral development. It should be noted that there are some limitations to this study. The study was somewhat small for the type of survey research that was being conducted and was composed primarily of White, non-Europeans (Jackson, 2004). A more racially diverse sample would have strengthened the results of the study. Additionally, the instrument used to measure compassion fatigue, burnout, and compassion satisfaction was relatively new and had limited evidence of validity and reliability (Jackson, 2004).

Despite these shortcomings, the study supported the utility of conducting a cognitive developmental interventional training model to mitigate the affects of working in settings such as RTCs that increase the occurrence of burnout and compassion fatigue (Jackson, 2004). The study implied that higher levels of cognitive development may serve to protect those in the helping professions from the deleterious affects of compassion fatigue and burnout (Jackson, 2004). Issues of compassion fatigue and burnout are clearly relevant to the field of residential treatment as it directly impacts the high turnover rate present in the field. Clearly the case can be made that Compassion Fatigue and Burnout impact the effectiveness of the youth care worker in engaging in a competent manner with the adolescents.

Such a staff turnover problems was addressed in a study by Raddo (1998). Raddo (1998) investigated a private residential treatment program in the Mid Atlantic which suffered from high staff turnover rates. The researcher trained 7 direct care workers using Applied Behavior Analysis techniques (Raddo, 1998). This new training approach showed promising results in reducing turnover rates. Certainly, the generalizability of this study is limited due to the small sample size. However, it does illustrate the value of

improving on the training of the direct care to address the aforementioned disturbing trends occurring in RTC.

The causative factors of burnout are certainly present in RTCs and are exacerbated by the poor training and inexperience of the direct care staff. The next section will detail research on training of direct care workers in residential settings.

Empirical Research

Training of Direct Care workers

Shealy (1996) has offered the Therapeutic Parent Model that focuses on factors deemed critical to the success of direct care workers. The model advocates that direct care workers have the knowledge to apply basic counseling skills, be adaptable and flexible, and have the ability to form positive relationships with the at-risk youth among other traits. These skills, characteristics, and attributes of direct care workers were gathered from supervisors, program directors, and direct care workers currently employed in residential treatment. Although a theoretical model, it offers a useful framework for constructing a training program for direct care workers.

Current training models have shown limited success in addressing issues of burnout and high turnover rates which continue to be serious threats to the quality of residential care (Doom, 1999). Treaby (2001) argues that “One of the most formidable challenges facing the child welfare industry is recruiting and training qualified staff” (P.6). A major concern is that inadequately trained staffs are more susceptible to increase stress and burnout which leads to an increased possibility of premature exit from the field (Sgaglio, 2003). Currently, few if any models of training in residential facilities address these multi-faceted needs.

Studies in residential settings support the usefulness of training to teach basic skills, instill a sense of competence, and to prepare direct care workers for a difficult working environment (Donat, 2001). However, training has been criticized for being too abstract and lacking applicability to the residential setting (Donat, 2001). For example, burnout and turnover are critical problems that are often not addressed in staff training programs (Sgaglio, 2003). Additionally, there is scant research on the efficacy of training methods. Finally, comprehensive training programs may be prohibitively too expensive and/or time consuming to meet the needs of residential facilities (Doom, 1999).

Programs typically utilize various methods to provide training to direct care staff. These may include: Role-plays, lectures, written and verbal instructions, modeling, and workshops that provide information and allow time for questions and answers (Doom, 1999). Each method has its strengths and limitations and their use is dependent on the training resources of the residential facility and the time allotted for training. For example, role-plays may give staff more confidence to attempt new skills but the lecture format appears to provide a substantial amount of theoretical knowledge. The following studies investigated behavioral modification training for direct care staff as this treatment modality is often used in adolescent residential treatment settings.

A study in 1992 by Smith, Parker, Taubman, and Lovaas assessed the effectiveness of a one week workshop to train direct care workers in behavioral modification compared to a control group who did not receive the training (as cited in Doom, 1999). The experimental group evidenced increased skill at applying principles of behavioral management but neither groups differed in a post-test measuring theoretical knowledge improvement. Without such a knowledge base, it is unclear if the effects of

the training would truly remain with the experimental group. That is, lacking a working understanding of the behavioral modification model, it may be difficult for the staff to continue to apply it correctly in a useful fashion.

Watson and Uzell (1980) used a text on behavioral modification and direct instruction to train a sample of direct care workers (as cited in Doom, 1999). The staff read and discussed the text and were given direct instruction in applying the principles. Although this program increased their theoretical knowledge of the material, there was little discernable effect on the application of the behavioral techniques in the residential setting. This study underscores a recurring difficulty in training that staff may learn the concepts but be unable to apply it within the context of the treatment milieu.

Finally, Hawkins (1991) examined the effects of a behavioral modification training program for direct care staff by looking at the behavior change of residents after the training (as cited in Doom, 1999). A comparison group received no training while the experimental group received ten hours of behavioral modification training. The results showed that there was no significant difference in resident behavior in either the experimental or comparison group. Both groups manifested change that could not be accounted for by the training. However, a similar study found that behavioral modification training programs yielded modest improvement in resident behaviors (Doom, 1999).

The Deliberate Psychological Education model differs significantly from current training models in residential treatment. The critical difference is not in *what is taught*, rather in *how it is taught*. Training continues to be a focus in residential treatment but the high rate of employee turnover remains too high. One reason given by Sprinthall (1994)

and others is that traditional models of training whether to improve basic skills competency or to acquire knowledge fall abysmally short of their desired intent. The DPE model is distinguished from other types of training in several specific areas.

Rather than passively receiving knowledge, participants in a DPE program are challenged to fully engage in a significant role-taking experience. This experience could include practicing new skills in real world settings, engaging in moral dilemma discussions around situations pertinent to their profession, journaling about their experience in the training, and engaging in regular guided reflection on not only what they are learning but how it is affecting them internally. Instead of simply absorbing and rote memorization of knowledge, trainees are challenged to make meaning of their professional work in a qualitatively different manner based the DPE model.

Another distinguishing characteristic is the use of the “matching model” proposed by Hunt (1975) as a means of organizing the training experience. The matching model refers to being intentional in matching a person to a particular environment during the training to accentuate the potential for promoting real cognitive growth. The environment can be highly structured, minimally structured, or anywhere along this continuum which may be changed throughout the course of the training to better match the trainee. Hunt (1975) conceptualized two matches; one where an individual can meet the challenges of the environment using their current knowledge and skills and thus are not challenged to develop new strategies or skills. The ideal is a match whereby the individual is challenged to develop new skills, concepts, and strategies for making meaning of their environment (Brendel, 1996). The fundamental concept is to match the

amount of structure required and then gradually mis-match the amount of structure to challenge the trainee and promote cognitive complexity.

There is no evidence in the literature that current training approaches in residential treatment attempt to use a matching model during training. What training exists appears to be the “one size fits all” variety. As noted earlier, persons at more concrete levels benefit from more structure in their learning environments. This entails presenting concrete concepts, use of short time on task, concepts presented multiple times and in different ways, and basic theory matched with experiential activities (Sprinthall, Sprinthall, & Oja, 1994). Those at more abstract levels of development benefit from exposure to abstract concepts, single practice of material, and a more collaborative approach to learning theory. Facilitator support is consistent and frequent in high structured learning environments while only occasional in low structure environments (Sprinthall, 1978). Again, no evidence exists in the residential training literature exists to suggest the use of a matching model in structuring training for direct care workers.

A final key difference is time. To be effective, the DPE model needs to be a minimum of three months of weekly or bi-weekly training sessions. This explains in part, the reluctance of residential treatment facilities to structure their training in a cognitive developmental fashion. Cognitive growth takes time and is slow. Such training programs can appear to be an unwarranted expense. However, as turnover continues to be high and incidents of malfeasance on the part of direct care staff persist, it appears that the cost of continuing to engage in more traditional and currently accepted models of training may be the highest of all.

The above highlight some of the shortcoming in current training models for child care workers in residential settings. A related concern of training is whether it can improve the high rates of burnout which lead to turnover amongst direct care staff.

Two studies illustrate that training can positively impact turnover and burnout of direct care workers. DiRaddo (1998) conducted such a study to investigate and improve a high staff turnover rate at a residential program. The training program consisted of modules on safety and restraint training, completing paperwork, an overview of behavioral modification and reinforcement. Finally, a mentoring program was established between new staff and more experienced staff. Caution must be used as this was a qualitative study and it is difficult to generalize the results; however training seemed to have a positive impact on staff turnover in this study.

Similarly, Sgaglio (2003) created a three day modular training program to deal with burnout amongst direct care workers. The model focuses on educating direct care workers about burnout, discussing ways to handle stress, and the importance of self-care. Although not a comprehensive training model, it is a positive step in designing specific programs to target both burnout and to improve the competency of direct care staff. The previous two studies support the notion that training can impact burnout and subsequently, the high rate of turnover amongst direct care workers. This paper has asserted that a cognitive developmental training model could impact burnout in direct care workers.

Summary

This chapter has provided an introduction to cognitive developmental theory and the specific domains of moral and conceptual development. Further, the concepts of

compassion fatigue and burnout have been highlighted. The importance of the constructs of Compassion fatigue and Burnout and their implications for RTC were explained. Empirical research that supported the use of a cognitive developmentally based interventional model was offered. Finally, a link between such a model and improvements in direct care workers relational skills was illustrated. Additionally, promising research suggesting the higher levels of cognitive complexity is correlated with a reduction in compassion fatigue and burnout was discussed. The following chapter will provide the research questions, research hypotheses, and the methodology and data analysis for the proposed study.

CHAPTER III

RESEARCH DESIGN & METHODOLOGY

The purpose of this study is to examine the effects of a Deliberate Psychological Educational intervention to promote cognitive complexity in a sample of direct care workers from a residential treatment facility for adolescents. More specifically, the workers will be exposed to a 16 week program designed to promote their moral and conceptual development. Further, the constructs of compassion fatigue and burnout will be measured as they have ramifications for the field of residential treatment. The independent variable will be the Deliberate Psychological Educational intervention and the following 5 dependent variables: Moral development, conceptual complexity, Compassion fatigue, Compassion Satisfaction, and Burnout. This chapter will examine the design and methodology of the study which will be presented in the following sections:

- a) Questions and hypothesis
- b) Research design
- c) Participants
- d) Instrumentation
- e) Procedures
- f) Data analysis
- g) Limitations
- h) Significance of the study

Research Questions

1. Will a Deliberate Psychological Education model increase moral development (as measured by the Defining Issues Test-II) in a sample of direct care RTC workers compared to a similar group of workers who did not participate in the intervention?
2. Will a Deliberate Psychological Education model increase conceptual level (as measured by the Paragraph Completion Method) in a sample of direct care RTC workers compared to a similar group of workers who did not participate in the intervention?
3. Will a Deliberate Psychological Education model reduce Burnout (as measured by the Professional Quality of Life Scale III-R) in a sample of direct care workers compared to a similar group of direct care workers who did not participate in the intervention?
4. Will a Deliberate Psychological Education model reduce vicarious or secondary trauma (i.e. Compassion Fatigue) and increase Compassion Satisfaction (as measured by the Professional Quality of Life III-R) in a sample of direct care workers as measured by the Professional Quality of Life Scale compared to a similar group of direct care workers who did not participate in the intervention?

Hypotheses

1. The intervention group will show significantly higher posttest levels of moral development as evidenced by the Defining Issues Test than the comparison group.
2. The intervention group will show higher posttest levels of conceptual complexity than the comparison group as evidenced by scores on the Paragraph Completion Method Test.

3. The intervention group will evidence lower scores of Burnout as measured by the Professional Quality of Life Scale than the comparison group.
4. The intervention group will evidence lower scores of Compassion Fatigue/secondary trauma as measured by the Professional Quality of Life Scale than the comparison group.
5. The intervention group will evidence higher scores of Compassion Satisfaction as measured by the Professional Quality of Life Scale.

Research Design

The study will be quasi-experimental in design (Gall, Gall, & Borg, 2003). The length of the intervention will be 4 months (16 weeks). The Deliberate Psychological Education model will be implemented with a sample of direct care workers from a residential treatment facility. The sample consisted of 22 workers and a comparison group totaling 16; 4 from a residential treatment facility in Maryland and 12 one on one counselors for children with behavioral and/or emotional problems in a school setting. The workers in the experimental group met every two weeks, for 2.5 hours for 16 weeks. The weekly meetings were organized around the basic tenets of a Deliberate Psychological Education model.

The sample consisted of a convenience sample of direct care workers; therefore there was no random assignment in this study. The design was therefore a non-equivalent control group design whereby both the experimental and comparison group were measured before and after the intervention. That is, the two groups were administered three instruments; the DIT, the PCM, and the Professional Quality of Life Scale IV-R. Such a quasi-experimental non-equivalent control group design is widely

used in education research and represents a viable option when random assignment of the sample is not possible (Gall et al., 2003; Campbell & Stanley, 1963).

The training model was implemented by this researcher with the experimental group. This was in addition to any training that was required by the site for the direct care workers. The comparison group received only the standard training that was required at the facility where they were employed. This standard training consists of being given a manual and a one day training on issues related to medication management. This study then investigated the impact of a Deliberate Psychological Education model (independent variable) on: a) moral development b) conceptual complexity c) compassion fatigue d) burnout e) compassion satisfaction (all dependent variables) in a sample of direct care workers from a residential treatment facility.

Participants

The participants in the experimental group were 22 direct care workers from a residential treatment facility in Virginia. The comparison group consisted of 16 participants: 12 who are one on one counselors at schools for children in Virginia and 4 who are direct care workers at a facility in Maryland. The researcher spoke to the director of each of the facilities to ascertain their level of interest in having their staff participate in the study. This researcher then spoke to the direct care workers and solicited volunteers for the study. The participants were informed that they may withdraw participation at any time. Further, they were assured of confidentiality.

Instrumentation

The Defining Issues Test

The Defining Issues Test was developed by Rest (1994) to measure moral development (Refer to Appendix D). Essentially, it is a semi-projective instrument that measures the manner in which people think through moral dilemmas and reach decisions in such moral situations. This test was developed from Kohlberg's theory of moral development and has largely replaced Kohlberg's earlier instrument, The Moral Judgment Interview. This study utilizes the DIT-Short form which does not require special training to administer or score (Jackson, 2004). It takes about 20 minutes to administer (Jackson, 2004).

The Defining Issues test presents dilemma vignettes in much the same manner as Kohlberg's Moral Judgment Interview. Following each vignette, the test-taker must answer 12 questions (Jackson, 2004). The 12 questions are responded to on a continuum ranging from "no importance" to "greatly important. Finally, the individuals select the four questions that were most influential in their arriving at a decision.

The Defining Issues Test yields a composite score (the D score) and a principled reasoning score (the P score) in addition to a stage score related to the stages of moral development as posited by Kohlberg (Jackson, 2004). The range of scores is 0-95 with lower scores representing lower levels of moral development while higher scores correspond to higher levels of moral development. The instrument contains items that are "gibberish" or make no sense to ensure that the participants follow the direction and are serious in their test-taking endeavor (Rest & Narvaez, 1994). "Faking good" items are embedded within the questions (Jackson, 2004).

Rest & Narvaez (1994) assert that the Defining Issues Test is both simple to administer and score. Rest & Narvaez (1994) write that the DIT has been utilized in many types of studies looking at the issue of moral development in the helping professions. There are three types of studies in which the DIT has been utilized; comparison of different groups of professionals, to gauge the efficacy of educational programs, and in interventional studies such as this study (Rest & Narvaez, 1994). Literally hundreds of studies have utilized the DIT (Rest, Narvaez, Bebeau, & Thoma, 2000)

The reliability and validity of the DIT is consistent (Rest, 1986 as cited in Brendel, 1996). The Cronbach's Alpha (a measure of reliability) for the DIT averages in the .80s (Brendel, 1996). Additionally, test-re-test reliability was reported by Rest et al. (1999) as being in the .80 range. The construct and convergent validity is supported by findings showing that the DIT is positively related to Kohlberg's Moral Judgment Inventory (Rest et al., 1999). The DIT evidences discriminant validity from instruments that measure general intelligence, verbal ability, and personality tests (Rest et al., 1999). Morgan (1998) asserts that there is strong support for the construct validity of this instrument.

Paragraph Completion Method (PCM)

The PCM is an instrument designed to assess a person on a continuum of conceptual level by measuring one's ability to process and integrate new perceptions and experiences from the social environment (Refer to Appendix E). The PCM was developed by Hunt, Butler, Noy, and Rosser (1978, cited in Morgan, 1998) through their work with conceptual level and its relation to optimizing learning in classroom settings.

The PCM gives presents participants with 6 “stem” statements and then asks for the participants to respond in writing to each stem with at least three sentences. Trained raters assign a score from 0-3 which corresponds to Hunt’s stages of conceptual complexity and then a total score is yielded from the average of the three highest scores (Morgan, 1998; Brendel, 1996).

Construct validity and inter-rater reliability ranges from .80 to .85 (Brendel, 1996). Concurrent validity with intelligence tests is in the range of .20 to .30 and a correlation with Kohlberg’s Moral Maturity Scale is reported at .40 (Hunt, 1970 cited in Morgan, 1998). The use of trained rater is important to having a robust inter-rater reliability of .86 (Morgan, 1998). Test-retest reliability at one year elapsed was reported to range from .45 to .56 in a study conducted by Hunt et al. (1978 as cited in Morgan, 1998).

The Professional Quality of Life Scale Revision 4 (Pro-QOL-R-IV)

The Professional Quality of Life Scale is a major revision of the older Compassion Fatigue Test (Stamm, 2005). The instrument contains three distinct scale measuring Compassion Fatigue, Compassion Satisfaction, and Burnout (Refer to Appendix C). These scales do not yield a combined score but rather the instrument gives three separate scale scores (Stamm, 2005). This is a shorter form of previous versions and as such contains 30 questions that are scored on a Likert scale (0-5) with the responses on a continuum of “Never” to “Very Often”. The instrument asks statements that reflect both the positive and negative affects of being in the helping professions and the directions specifically instruct the test taker to focus on the last 30 days.

Compassion satisfaction measures how much contentment or pleasure an individual receives from doing their job (Stamm, 2005). Higher scores illustrate increased job satisfaction and correlate with a felt sense of being able to effectively function as a helping professional (Stamm, 2005). The average score on this scale is 37 and scores below 32 indicate potential dissatisfaction with your job (Stamm, 2005). The Burnout scale describes a range of feelings and behaviors predominated by a sense of being overwhelmed at work and having marked difficulty in completing ones job effectively (Stamm, 2005). The average score is 23 and scoring below 19 indicates a person at low risk for burnout while a score above 28 indicates a person may be suffering from work related burnout.

The third scale, Compassion Fatigue, refers to the level of a care-givers exposure to secondary or vicarious trauma (Stamm, 2005). The average score is 13 and scores above 17 represent situations where a person is suffering harmful affects from being exposed to secondary trauma (Stamm, 2005). These scales and scoring were created, refined, and revised from close to 2000 completed instruments from a variety of studies involving teachers, nurses, therapists, and aide workers (Stamm, 2005).

The alpha reliabilities for the three scales are as follows: Burnout=.72, Compassion Fatigue= .80, and Compassion Satisfaction= .87. Stamm (2005) states that test re-test data is “good” based on studies with this current version. Stamm (2005) further reports that the revised instrument has solid construct validity based on its usage in over 200 peer-reviewed articles. This revised version reduces the collinearity between the scales of compassion fatigue and burnout. These are distinct scales despite some overlap in terms of the constructs the two measure (Stamm, 2005). Stamm (2005) states

that burnout shares 5% of the variance with compassion satisfaction, while compassion satisfaction shares 2% variance with compassion fatigue. Burnout and compassion fatigue have higher shared variance (21%) due to the aforementioned overlap in the pathology common to both constructs (Stamm, 2005).

Procedure

The participants in both the experimental and comparison groups were volunteers for this study. The participants were informed of their right to confidentiality and their right to withdraw their participation from the study at any time. Participants were informed of the study in a cover letter and through receiving, reading, and signing an informed consent form (Refer to Appendix A). The three instruments will be administered pre and post to each of the two groups by this researcher.

Description of the Intervention

The direct care workers will participate in a training program using the Deliberate Psychological Education model as outlined by Faubert et al. (1996). The training model will be taught by this author who possesses a master's degree in counseling and is a Ph.D candidate in counselor education. The content of the training model will entail skills and knowledge from current residential treatment literature deemed critical to the success of direct care workers (Shealy, 1996; Chase-Fekaris, 2004; Naitone, 2000; Foster & McAdams, 1998). The overall goals of the training program will be to increase the competency and knowledge base of the workers to enable them to function skillfully in a challenging treatment milieu. Additionally, the training program will attempt to increase the cognitive complexity of the workers and increase their ability to adapt and be flexible in the residential setting (Holloway & Wampold, 1986).

The Joyce and Weil (1980) skills training model was used to illustrate the training skills and concepts. As part of the DPE, this model has four components. First, the skills for that training session were presented using handouts, lecture, and discussion. Secondly, the trainees viewed role-plays to demonstrate the skills. Thirdly, the trainees were given opportunities in small groups to practice the skills. Finally, the trainees were encouraged to utilize these new skills in the residential treatment setting with the at-risk youth and to journal about the experience and talk about it in future group discussions. The following sections delineate the content of the training programs.

Counseling Skills Training

The training program focused on learning basic counseling skills. Tally (2000) argues that the relationship formed between the direct care worker and the adolescent accounts for the most variance in the occurrence of a positive treatment outcome. Basic counseling skills such as active listening, reflection of feelings, accurate empathy, supportive confrontation, and clarification were taught. Cormier and Hackney (1999) argue that these basic skills are essential to forming a therapeutic relationship. Beitman (1987) reinforces that these basic techniques underlie most, if not all successful therapeutic alliances. These same skills would aid direct care workers in forming healing relationships with the youth that they engage with and interact with on a daily basis.

Creating a supportive environment wherein healing may take place for adolescents in treatment is critically important. The principles of person-centered counseling as espoused by Carl Rogers were included in the training model. Rogers believed through showing unconditional positive regard, emphasizing accurate empathy, and the counselor's modeling of congruence human beings begin to self-actualize.

Essentially, they can access their innate ability to grow and develop in a positive direction (Cormier & Hackney, 1999). Applying these principles to a residential treatment setting could be part of the therapeutic environment and aid in treating the adolescents.

Use of the DSM-IV-R

The DSM-IV-R (2000) is widely used in the residential treatment field to make diagnoses, to conceptualize treatment plans, and to inform service plans for the youth. However, at the research site there was a lack of formal education regarding the use of the DSM-IV-R and the benefits and drawbacks of labeling a youth with a formal psychiatric diagnosis. This section looked at gaining familiarity with psychiatric symptoms of diagnoses common amongst adolescents. These include depression, anxiety disorders, eating disorders, substance abuse/dependence, and personality disorders.

Attachment Theory

Attachment theory presented a potentially useful means for the direct care workers to conceptualize the ongoing struggles with the adolescents in treatment (Main, 1996). Attachment theory offers the perspective that formative bonding exerts a continuous impact on a person throughout their life. It also offers hope that attachment patterns can change through new attachment patterns being initiated and modeled. This perspective may prove useful to direct care workers challenged to make sense of the struggles in their relationships with their adolescent charges. Further, Naitone (1996) argues that most adolescents in residential suffer from negative attachment patterns to care-givers making this a pertinent topic for direct workers.

Multi-cultural education

A significant portion of adolescents in residential settings are non-Caucasian in origin i.e. African-American or Hispanic according to the National Center for Juvenile Justice. Chase-Fekaris (2004) argues that little training of direct care workers focuses on this fact. This facet of the training program gave the direct care workers the opportunity to reflect on their own stereotypes and biases regarding race and ethnicity. Discussions and journaling promoted how these biases could manifest in their work with the adolescents. Additionally, the concept that specific means of engaging and working with the youth should be tailored to their specific race and background was offered along with pro-active strategies for dealing with racial conflicts.

Self-Care/Burnout

Issues of burnout and compassion fatigue are endemic to the helping professions. The challenging nature of residential treatment makes minimizing burnout and compassion overload a primary concern. One method of dealing with this conundrum is introducing the concepts of burnout and compassion fatigue and engaging the direct care workers in how this might impact their job performance and longevity. Further, training programs that focus on self care and stress reduction have been effective in reducing burnout (Svaglio, 2002). Providing viable options for self-care and means of reducing stress was a critical piece of this training program.

Group Facilitation

The ability to understand group theory and process and apply these principles to at-risk youth in residential treatment is vitally important. Residential treatment facilities that are privately owned are increasingly seeking status as state Medicaid providers. This

increases potential referral sources and funding. Several therapeutic groups must be facilitated per week as part of the stipulations for being a Medicaid provider. Many direct care workers do not have the educational and/or employment experience in group work. Practical information on the modality of group treatment for adolescents becomes a vital component of the training program.

Family Functioning

The family of origin of the at-risk youth is an important consideration. From this family, the youth learned how to handle conflict, how to negotiate, how to get their needs met, and how to relate to others (Carter & McGoldrick, 1999). Some of these patterns of being may be negative and inappropriate in the current treatment environment. This section of the training model focused on how to explore family of origin issues and to gently confront mal-adaptive familial patterns. Additionally, the role of the direct care worker as liaison between the program and family was explored. The following section will outline how the training model was taught using the Deliberate Psychological Education model.

Experimental Procedure with a Deliberate Psychological Education Model

The DPE educational model has empirical support as an efficacious means of promoting cognitive growth within the confines of a study (Faubert et al., 1996). The important elements are: A significant role-taking experience, a balance of support and challenge, continuity, and a balance between guided reflection and the role-taking experience.

Role-Taking Experience

The role-taking experience for this study was fulfilled partially by the participants being employed at a residential treatment setting. Such jobs are a new experience every day due to the rapidly changing and often chaotic environment. Daily direct care workers are challenged to meet the diverse and problematic needs of each of the residents while fulfilling other duties as specified in their job description. The second component of the role-taking experience was participating in the bi-weekly group for the 16 weeks. This group was a significantly new and different experience for both the participants and this researcher.

Each training session discussions were facilitated by the researcher that represented moral dilemmas that were applicable to the residential settings. These discussions challenged the direct care workers with situations that they could readily grasp and understand within the context of their own work. Sheely (1996) argues that ethical issues abound in residential settings and thus the movies were utilized to promote discussion and perspective taking of the participants around their own ethical thinking. The focus of the discussions was not on what a direct care worker should do per se, but rather the reasoning they would use to arrive at an answer. The spotlight was on what information was important to them in making a decision.

Support and Challenge

The direct care workers were given a great deal of support at the beginning of the training program. This was in the form of compliments, encouragement, and empathetic responses to their struggles with the expectations of both their job and the experience of being in the study. The support was gradually lessened after the initial few weeks and the

students were challenged with more difficult skills to master and more complex dilemma discussions. The support was ever present but it was now infused with the challenge that is necessary to promote growth (Faubert et al., 1996).

Reflection

The students were asked to journal once every two weeks. The journals were e-mailed to the researcher and extensive comments were made to each participant. The participants were given no guidelines or restrictions on what the content of these journals should or should not be.

Balance of Reflection and Role-taking

The direct care workers were encouraged both in their journals and in the weekly group meetings to process problems, struggles, and challenges both in working in a residential treatment setting and participating in the study. The researcher facilitated discussions around issues to explore and normalize the cognitive dissonance that each participant was experiencing.

Continuity

The intervention lasted for 16 weeks. This amount of time is sufficient to see results according to prior empirical research that attempted to promote cognitive complexity (Morgan, 1998).

Data Analysis

The purpose of this study was to examine the effects of a Deliberate Psychological Education (DPE) model to promote cognitive complexity in a sample of direct care workers in a residential treatment facility. More specifically, the direct care workers were exposed to a 16 week intervention program designed to promote moral and

conceptual level development. Additionally, the participants were assessed to determine their level of compassion, their felt sense of job burnout, and level of exposure to trauma.

The aforementioned hypotheses were tested using a repeated measures multivariate analysis of variance (MANOVA). The MANOVA design is recommended for this type of studies where there are more than three dependent measures that are repeated which adds an additional factor of time to be considered (Weinfurt, 2000). The MANOVA becomes a useful means for examining the main and interactional effects of the treatment on the two independent groups (Weinfurt, 2000). Weinfurt (2000) reports that the repeated measure MANOVA is a strong and efficacious tool ideally suited for this type of design. The repeated measures MANOVA is recommended as it reduces error variance and fewer participants are needed to achieve robust results (Weinfurt, 2000). This experiment featured a pretest posttest design with an additional independent variable, time. If t-tests or even an ANOVA were run on all the combinations of independent variables (Time and the DPE) and the dependent variables, the probability of making a Type I error would have been greatly increased (Weinfurt, 2000). In other words, the chance that significant results would have been detected where none existed would have been artificially increased.

Multiple regression analysis was used to explore the relationships between the scores on the three measures. Regression analysis was utilized to determine association between score on the cognitive developmental instruments (DIT-II and PCM) and the Professional Quality of Life IV-R. It was hoped this would give a better understanding of any change in the trainees from the beginning of the intervention till the end.

Finally, a descriptive piece was utilized to highlight the experience of the trainees throughout the course of the study. These will include selected journal passages of participants which illustrate the challenge and struggles of both the training and their difficult and demanding jobs. Frequently occurring themes and impressions of the trainees through their journaling will be elucidated. Finally, it would be remiss not to include the observations of the researcher in this endeavor. These observations will show the challenges and rewards in constructing such an intervention.

Limitations

There are several limitations that need to be examined when conducting a non-equivalent control group study with a repeated measures (pretest and posttest) design. Gall et al., (2003) assert that the most significant threat to validity is the notion of pre-existing conditions between the experimental and control group being responsible for any change, pre to post testing. Campbell and Stanley (1963) further state that factors such as maturation, testing, regression, and instrumentation may affect the validity of the non-equivalent design. In short, some type of interactions may take place between these variables and the processes by which the control and experimental group were selected.

Maturation is a possibility in this design as the direct care workers would conceivably change with both experience and any training that they received at the RTC. However, as both groups went through the experience of working in a RTC and both received the training(s) at their respective facilities this threat to internal validity was controlled. Testing is another threat to internal validity and states that if the same instruments are used, the participants may improve based on prior familiarity with the instruments (Gall et al., 2003). However, these instruments do not have any clear “right”

or “wrong” or “better” answers so this threat is unlikely to have occurred. Finally statistical regression holds that extreme scores on the first measure will tend to gravitate towards the mean (Campbell & Stanley, 1963). However, few extreme scores resulted on the pretest administrations. Finally, the instruments themselves need to be considered. Both the DIT and the PCM have solid reliability and validity. The results of the Pro-QOL-IV R should be regarded carefully in light of the preliminary nature of the validity and reliability scores associated with this instrument. In general, Campbell and Stanley (1963) state that the non-equivalent control group design does an admirable job of controlling for the effects of history, maturation, regression, and instrumentation.

The most significant limitation of this study was attrition. Turnover in the field of adolescent residential treatment is a significant problem. Regrettably, this phenomenon occurred repeatedly within the context of this study. The experimental group started with 22 participants, but finished with only 12 due to participants quitting their jobs or being released from employment by the company. In the comparison group, 16 participants completed the pre-test instruments but only 14 completed the post-test instruments.

Implications of the Study

Several implication highlight the importance of this study if any or all of the hypotheses are supported with significant results. First, the literature shows that the direct care worker is greatly challenged by the environment of a RTC. Increasing the cognitive complexity of the direct care worker would yield positive results in terms of their ability to more readily adapt and evidence more cognitively complex means of managing their environment. Empirical research (Foster & McAdams, 1998; Bernard & Goodyear, 2004) asserts that increasing cognitive complexity promotes development of

skills that are critical and necessary to the important work that a direct care worker performs. Promoting cognitive complexity will conceivably result in more competent direct care staff which is highlighted in the RTC literature as being a primary concern.

Secondly, the lack of effective training for direct care workers has been illustrated in the literature as being of paramount concern. A DPE model using a conceptual framework of cognitive developmental theory could be a viable option as a training standard. Currently, there is a lack of efficacious training models employed with direct care workers (Chase-Fekaris, 2004).

Further, examining the relationship between a cognitive developmental intervention and the constructs of Compassion Fatigue, Compassion Satisfaction, and Burnout is an important consideration for residential treatment. Burnout and Compassion Fatigue are problems that directly lead to the high turnover rates and lack of retention of direct care staff. If a cognitive developmental training program reduced both Compassion Fatigue and Burnout it could be a vehicle for arresting the high rate of turnover currently occurring in residential treatment. Additionally, if a cognitive developmental training program increased Compassion Satisfaction this would ideally aid in retaining direct care staff and preferably help the staff to be more effective in their role as care-givers.

Finally, research in RTCs illustrates the importance of the direct care staff forming solid attachments to the youth (Tally, 2000). Such attachments significantly relate to positive treatment outcomes (Tally, 2000; Naitone, 1998). A cognitive developmental approach that increases staff retention as mentioned above will provide the vital element of time and proximity which is missing if the staff prematurely leaves

the facility. On a more practical note, the basic counseling skills presented in to the experimental group will presumably increase the ability of the direct care staff to form solid attachments with the youth.

Chapter Four

Description of the Intervention

Direct care workers participated in a four month training program. The trainees met once every two weeks for two and half hours each session. The training sessions were conducted by this researcher, who has a M.S. in community counseling and is a Ph.D candidate in counselor education. This researcher has close to ten years experience counseling in a variety of mental health settings, including residential treatment centers. The Deliberate Psychological Education model (DPE) was incorporated into the design and implementation of the training program. The curriculum and focus of each training session was created through consultation with the program director and case managers of the residential facility where the trainees were employed. The overall goal of the training program was to provide an introduction to foundational skills, concepts, and knowledge deemed by the program director and case managers that would be useful to the direct care workers in meeting the challenges of their profession. Additionally, the input of the direct care workers was solicited to explore what they were interested in learning and receiving from the training.

Training Objectives

- The trainee will have an environment to share ideas with fellow trainees
- The trainee will have a bi-weekly opportunity to reflect on and make meaning of their experience in both the training and the job as a direct care worker
- The trainee will be introduced to basic counseling skills, their applications, and will be given the opportunity to practice these skills

- The trainee will learn basic techniques for facilitating groups and the types of groups that can be utilized. Further, the trainee will learn how to structure a group experience for adolescents
- The trainee will explore ethical decision-making and specifically how it applies to situations that may arise in residential treatment settings
- The trainee will be introduced to the use of the Diagnostic Statistical Manual IV-R in conceptualizing treatment plans for residents
- The trainee will explore the impact of family of origin on their residents and the implications of family systems theory
- The trainee learn about multicultural issues that permeate the residential treatment environment and will be challenged to examine their own biases and stereotypes
- The trainee will be introduced to the concepts of burnout and self-care. Strategies for self-care will be presented and discussed

Requirements

The direct care workers were expected to attend all of the trainings. The direct care workers were expected to participate in both large and small group discussions. Finally, they were expected complete a journal writing assignment every two weeks.

Large Group and Small Group Discussions

The trainees participated in large group discussions during each session. The discussions provided the opportunity for the trainees to reflect on their experiences both at work and in this training program. Further, it provided the opportunity to introduce the skills and concepts that would be focused on during the training. Small group discussions were utilized each training session, to provide the opportunity to practice

skills, share knowledge, and discuss moral decision-making. Based on the DPE format, the large and small group discussions provided the opportunity to process, reflect, and make meaning of both the training program and their roles as direct care workers. Perspective taking was encouraged through the use of experiential activities and discussions. Ideally, the training sessions provided the necessary support to balance the disequilibrium and dissonance necessary for achieving cognitive growth.

Description of specific training sessions

Training Session 1- Basic Counseling skills

- Discussion topics included the importance of counseling in residential treatment, importance of forming a therapeutic relationship, use in conflict resolution, and useful in facilitating appropriate interactions
- Lecture topics: Importance of non-verbals (facial expression, eye contact, and body position and language. The use of accurate reflection of feelings and expressing appropriate empathy for youth in residential treatment.
- Role-Play 1 (three person groups, speaker gives concern, respondent reflects feeling(s) back, reverse roles, and then process in small groups including focus on non-verbals.
- Large group discussion on the role-play
- Large group lecture on summarization of feelings, responding to affective/cognitive content, and the use of confrontation
- Small group role-plays focusing on using these skills.
- Large group discussion on the role-plays and the utility of this skill set in an adolescent residential treatment setting

- Brief discussion of attachment theory and its effect on establishing a therapeutic relationship

Researcher notes: There were a great many skills put into this one training session. This limited the time available to actually process and fully discuss the role-plays. It would be more helpful to limit the skills set presented. The direct care workers were intrigued by the research documenting the importance of the therapeutic relationship in positive treatment outcome and this seemed to provide validation of their own experience. Attachment theory was only minimally discussed.

Dilemma #1

Using your counseling skills, you de-escalate a 14 year old resident, Jane. Jane then asks to confide in you. She asks you to keep it a “secret”. Jane then tells you that a fellow direct care worker who was just recently hired (whom you do not know well) has been making sexually suggestive comments to her. You are stunned. You know that Jane has had issues of sexual “acting out” and lying during her time at the treatment facility. Seeing your facial expression, Jane says, “Oh, I was just kidding, please don’t tell anyone”. She then leaves.

- Dilemma discussion in small groups, followed by large group process
- Questions include: What should you do? What are the important issues to consider? Does your lack of relationship to the accused worker factor in your decision? Does Jane’s history of problematic behaviors factor into your decision?

Journal #1 topic

Apply one or more of these basic counseling in an interaction with a client and discuss how the experience was for you. Did it seem to help the situation? Did it feel uncomfortable for you?

Training Session #2 Introduction to Group Counseling

- Large group discussion of the use of groups in residential treatment
- Lecture on critical skills for groups leaders, functions of groups, and styles of leadership
- Small group discussions questions: What is the function of groups? How are groups utilized at your facility? What works and does not work in your experience? What needs to be improved?
- Lecture on setting up groups (rules, goals, expectations, confidentiality, and roles). Dealing with resistance in groups
- Small group, then large group discussion on why group works and specific skills useful in groups

Researcher notes: The dilemma discussion below, presented a powerful means of illustrating the power of the group process. This dilemma discussion led into how to harness the inherent power of the group to enact positive change with at-risk youth.

Dilemma #2

Air Crash Scenario (adapted from Wilderdom store website)

A small aircraft crashes in the shark infested waters of the Pacific Ocean. There is damage to the aircraft on impact with the water which causes the electronic systems

within to be damaged. The resulting radio failure means that no may-day message can be sent.

Of the sixteen passengers on the plane there are nine survivors. The location of the crash is approximately one and a half days from the nearest land. The life raft on one side of the airplane can be used; however there is only room for four persons in it.

Your group must reach a decision as to which four persons can enter the life raft. You have approximately 30 minutes to reach this decision before the aircraft sinks.

Nine Survivors

- a. Scientist- 40 yr. old, white male, working on a vaccine for the AIDS virus. Has three children.
- b. Priest- 65 yr. old, while male. Has been a Roman Catholic priest for over 40 years. Due to retire in three months.
- c. Married couple- African American couple in their 30's, with three small children at home. The husband is a computer programmer and his wife is a nurse.
- d. Single pregnant woman- white female in her 20's appears to be a chronic heroin user
- e. Married couple- Hispanic couple in their 30's, with three small children. They are migrant workers in California.
- f. Elderly woman- African-American, in her late 70's, returning home to see her grandchildren for the first time.
- g. Disabled person- white male, early 20's who is confined to a wheelchair
- h. Lawyer- white male, early 40's, a self-described "ambulance chaser"
- i. Doctor- Asian, mid 40's, specialized in emergency room surgery. No children

- Small group discussion on moral dilemma scenario
- Process in large group format

Journal #2

If you have an opportunity to lead a group this week, please discuss the experience focusing on what worked and what did not work for you as a leader. What did you do well and what would you like to improve on? Were you able to utilize any of the training and discussion on facilitating groups?

Training Session #3 Groups Part 2

- Review and discussion of training material from previous session on groups
- Lecture on specific group techniques (linking clients together, building trust, use of confrontation in group, use of role-plays, use of ice-breakers, and facilitator intentionality in groups.
- Small group exercise: Split into two groups, this researcher facilitates a short group, then switch roles.
- Large group process of the experience
- Small group exercise: Split into groups of 3-4 and brainstorm ideas about different types of groups that would be important to run at the residential facility.
- Process in large group

Researcher notes: More time should have been allotted to generate topic ideas for groups to facilitate with at-risk youth. These trainees were shortly expected to facilitate several groups a week with the youth and were unclear about what types of groups could be feasible and useful to the adolescents in their charge.

Dilemma #3

John is an 18 year old resident of your home. He has been with the program for five years and was taken from a home where he was physically, emotionally, and sexually abused by his parents. Although highly intelligent he has made poor grades at school, is routinely defiant with staff, and has physically assaulted other residents. A female staff member, Sarah, goes into his room to make him get ready for school. John threatens her with “I will kick your ass if you bother me again”. Sarah refuses to work when John is in the home which is causing a severe staffing problem. The program director leaves it up to the staff whether to remove John from the program or to allow him to stay. You are the deciding vote.

- Small group discussion on the dilemma: What would you do? Does the safety and harmony of the group versus the needs of John factor into your decision? Does John’s troubled family of origin influence your decision? If you do or do not feel a personal connection or bond to John influence your decision?

Journal #3

In preparation for the next training session in ethical decision-making, please use this journal to reflect on your own experience of ethical dilemmas in residential treatment. Please discuss ethical issues that may arise in residential treatment. What is important or salient to you in making ethical decisions? Do you have someone to talk with in making decisions? What is difficult about ethical decision-making?

Training Session #4 Ethical Decision-Making

- Lecture on ethical development including the stage model from Kohlberg and the Four Component Model

- Small group discussion on relevance of ethical training and development in adolescent residential treatment
- Lecture on moral development in adolescents including research highlighting benefits of character education in adolescents
- Focus on the how to promote moral development in adolescents through dilemma discussion groups
- Small group discussion on utility of including moral development groups as part of the residential treatment program

Researcher notes: This training session was difficult for the direct care workers in terms of being active and engaged with the subject matter. Part of the problem could have been opening with the lecture on moral development. The trainees had a difficult time seeing the relevance to their work. The latter part of the training illustrating the positive relationship between moral development and pro-social behaviors was more readily grasped by the trainees.

Dilemma #4

Jean is taking care of his sick mother and sister. The family is poor. He is forced to steal both food and medicine to sustain them. He is caught, arrested and sentenced to jail. Knowing his mother and sister need him to survive, he escapes and takes them to a different part of the country and assumes a new identity. Over ten years pass. Jean makes a great deal of money and uses this windfall to establish a hospital for indigent patients and he gives freely to charitable causes. An individual recognizes him as a wanted criminal. Should he turn Jean in?

Large group discussion: Does Jean still owe a “debt” to society? Does the good deeds that Jean have done outweigh his criminal past? Is your decision effected by his reasoning for committing the crimes (i.e. for his sick family members)?

Journal #4

Continue to reflect on the moral dilemma presented in class. What decision would you make? What factors most heavily influence your decision? Is it possible to weigh the laws of society with the needs of a small group of individuals? If this discussion reminded you of similar situations in your own life, please discuss.

Training Session #5 Use of the DSM-IV

- Large group discussion on the utility of the DSM-IV and the limitations and benefits of the manual
- Lecture on mood disorders, anxiety disorders, conduct disorder, oppositional-defiant disorder. and eating disorders
- Small group discussion of 4 vignettes, trainees were asked to make tentative diagnoses on the cases presented
- Large group process of the exercise

Dilemma #5

Your program director denies admission to a youth that you have a personal connection to and whom you have advocated for their admission into the residential treatment program. You contemplate “going over the head” of your program director to get the youth into the program which he desperately needs. However, you know this will have negative consequences for you professionally and in your working relationship with the program director. What decision do you make?

- Small group discussion: What should you do? What factors influence your decision? How would it affect you personally and professionally if you took no action whatsoever?

Researcher notes: The trainees wanted more ideas regarding how to work with specific diagnoses in the residential treatment setting. It is helpful to have additional information for the trainees to take with them regarding treatment interventions for specific psychiatric disorders.

Journal #5

Please reflect on the training program up till this point. Specifically, what has been helpful about the training? What have you learned? What changes would you recommend? What has been the most difficult part of this training thus far?

Training Session #6 Family Systems

Small group discussion, then large group discussion of the following questions:

- What makes up a family?
- What makes a family “normal” or “abnormal” (i.e. not healthy)
- Do issues of race, culture, ethnicity, and gender influence how we define families?
- Large group discussion on characteristics of families
- Large group discussion on how the idea of family is modeled at the residential treatment center
- Lecture on the family life cycle in terms of development
- Discussion regarding issues in families including: Communication, boundaries, coalitions, and level of engagement between family members

- Small group leading to large group discussion about how the biological family members of the youth in residential treatment are and are not included in the treatment process

Dilemma Discussion #6

You are the pilot of a 747 jetliner on route to Denver, Co. An hour from your destination, the stewardess urgently informs you that a man is having a heart attack and will die without immediate medical attention. You decide to attempt to land at a small, regional airport close by so the man can receive medical attention. Your request is denied due to bad wintry weather (snow and ice) and you are advised to proceed to Denver, CO and landing at the small airport would be unsafe for all your passengers. However, if you proceed to Denver, the man will surely die due to the lack of medical attention.

Questions to consider: What characterizes your reasoning in terms of making a decision about this dilemma? Would it make a difference if the dying individual was a member of your family? Would it make a difference if the dying individual was a fellow co-worker? Would it make a difference if the passengers agreed to land the plane at the smaller airport, knowing the risks this would entail?

Journal #6

The next training session will be on multiculturalism. In preparation for that, I would like you to journal on what your culture entails. That is, what makes your own culture unique? Was it influenced by where you lived? Is your sense of culture influenced by your family and friends? Do issues of race and ethnicity influence how one defines culture? How do you define culture for yourself?

Session #7 Multiculturalism

- Large group discussion on trends in Multiculturalism and the lack of such training in residential treatment with adolescents
- Small group discussion to define race, ethnicity, culture, and white privilege
- Large group discussion about the process of defining the above terms
- In large group, the participants were asked to discuss a time that they experienced racism or prejudice. Further, the group was asked to process how these experiences impact the way they work with children in residential treatment
- Lecture on the Cross-Cultural Model (Lee, 2004) and its implications for residential treatment
- Lecture/large group discussion on counseling African-American youth focusing on challenges facing this population and possible strategies to utilize
- Discussion of the issues facing Socio-Economically Disadvantaged and how these challenges impact the involvement of the youth biological families in residential treatment

Researcher notes: The section on working with Socio-Economically Disadvantaged individuals was only given a few minutes as the trainees spend more time than expected discussing their own experiences around racism and prejudice. It may be helpful to shorten the time spent defining terms at the beginning of the session.

Dilemma #7

You are the program director of a residential treatment center. You are looking to expand and you are able to find a house in a residential neighborhood that would fit your needs. You attend a neighborhood meeting and discuss purchasing the home

and turning into an adolescent residential treatment facility. The neighbors (predominantly Caucasian and upper middle class) angrily oppose the idea and vow to “make things tough” on you if you attempt to purchase the property. What do you do? What issues are at stake? How would you react to the vehement opposition? What might cause you to look in a different neighborhood for a suitable home? Does the race, ethnicity, or culture of yourself and the neighborhood impact your decision?

Journal #7

Please reflect on this training. Specifically, what did you gain from it? What did you learn from the experience? Was there anything you wish had been different? What will take away from the experience? Did you learn anything about yourself that you did not previously know?

Session #8 Burnout and Compassion Fatigue

- Lecture on burnout and compassion fatigue
- Small group discussion on how the direct workers deal with stress and burnout
- Large group discussion on how to deal with burnout, stress, and compassion fatigue
- Focus on helping one another make sense of stress and burnout
- Discussion to elicit the factors that the trainees feel aid them in longevity in the field of adolescent residential treatment
- Final process of the entire training program and conclusion

Researcher notes: The terms burnout, compassion fatigue, and their relationship to poor work performance and employee turnover should be defined at the outset of the training. These terms are not necessarily in the lexicon of direct care workers in

adolescent residential treatment. Once these terms were defined, the trainees could see the importance of the training session.

Chapter Five

Results

This chapter presents the results of the statistical analyses for this study. The study contained two groups. The intervention group was composed of direct care workers in at an adolescent residential treatment in Virginia. The comparison group was composed of counselors who work one on one with emotionally and or behaviorally disturbed adolescents in schools in Virginia. The intervention group participated in a four month long training program based on cognitive developmental theory using the aforementioned Deliberate Psychological Education model.

The design of the study was a quasi-experimental pre-test/posttest design with a comparison group. The participants were tested once at the beginning of the training and once at the conclusion. Three instruments were utilized. They were: The Defining Issues Test-II (DIT-II), The Paragraph Completion Method (PCM), and The Professional Quality of Life Scale IV-R (PRO-QOL-IV-R). The study began with 37 participants who completed the three instruments (21 in the intervention group and 16 in the comparison group). The study concluded with 26 participants who completed the three instruments (12 in the intervention group and 14 in the comparison group). The intervention group participated in the Deliberate Psychological Education model training program described previously in Chapter 4. The comparison group completed a researcher designed instrument (refer to Appendix F) asking them to describe any training they received during the four month intervention period. The following sections provide the resultant data from the training questionnaire.

Comparison Group Training

Fourteen participants completed the questionnaire on training for the comparison group along with the three posttest instruments. Five participants did not participate in any training services during the intervention period. Five participants completed “workshops”. Two of these were for 3 hours; one did 12 hours of workshop training, one accomplished 16 hours of workshop training, and one completed 50 hours of workshop training. Two participants participated in “program or state mandated” training, with one doing 10 hours and the other doing 30 hours of such training. Finally, two participants took college classes pertaining to residential work, with each participant taking one such class. These results appear to show the lack of formalized training standards in residential treatment which varied from person to person in this sample group.

The following tables will provide descriptive data on the initial sample and the final sample.

Demographics

Demographic information were collected using an instrument designed by the researcher (refer to Appendix B).

Pretest Sample

Table 1

Race/Ethnicity of Pretest Sample

	Race/Ethnicity	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	White/Caucasian	11	29.7	29.7	29.7
	African-American	26	70.3	70.3	100.0
	Total	37	100.0	100.0	

The pre-test sample contained 11 Caucasians and 26 African-Americans.

Table 2

Gender of Pretest Sample

	Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	19	51.4	51.4	51.4
	Female	18	48.6	48.6	100.0
	Total	37	100.0	100.0	

The pre-test sample was almost evenly split with 19 males and 18 females comprising the two groups.

Table 3

Age (M and SD.) of Pretest Sample

	N	Minimum	Maximum	Mean	Std. Deviation
AGE	37	20	54	34.65	8.820
Valid N (listwise)	37				

Ages ranged from 20 years old to a high of 54 years old.

Table 4

Education Level of Pretest Sample

	Education Level	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	GED/Equivalent	1	2.7	2.7	2.7
	High School	2	5.4	5.4	8.1
	College	24	64.9	64.9	73.0
	Graduate	10	27.0	27.0	100.0
	Total	37	100.0	100.0	

The majority of the participants in the study (64.9%) reported having either currently enrolled in college or having completed a four year college degree. A large group (27%) reported being currently enrolled in graduate school or have completed a graduate degree.

Table 5

Residential treatment experience in months for Pretest Sample (M and SD.)

	N	Minimum	Maximum	Mean	Std. Deviation
MONTHSRES	37	1	130	42.78	44.241
Valid N (listwise)	37				

The range of time spent in residential treatment ranged from a low of one month to a high of 130 months.

Posttest sample Demographics

The following tables present demographic information for the 26 participants (14 in the comparison group and 12 in the intervention group) who completed the post-test instruments.

Table 6

Race/Ethnicity of Posttest Sample

	Race/Ethnicity	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	White/Caucasian	8	30.8	30.8	30.8
	African-American	18	69.2	69.2	100.0
	Total	26	100.0	100.0	

The Post-test sample contained 8 Caucasian and 18 African-American participants.

Table 7

Gender of Posttest Sample

	Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	14	53.8	53.8	53.8
	Female	12	46.2	46.2	100.0
	Total	26	100.0	100.0	

The Post-test sample was almost evenly split with 14 males and 12 females.

Table 8

Age (M and SD.) of Posttest Sample

	N	Minimum	Maximum	Mean	Std. Deviation
AGE	26	23	54	33.6	8.286
Valid N (listwise)	26				

The ages of the posttest sample had a mean of 33.6 yrs. old with a minimum age of 23 years old and a maximum of 54 years of age.

Table 9

Educational Level of Posttest Sample

	Education Level	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	GED/Equivalent	1	3.8	3.8	3.8
	High School	1	3.8	3.8	7.7
	College	16	61.5	61.5	69.2
	Graduate	8	30.8	30.8	100.0
	Total	26	100.0	100.0	

The majority of the participants (24) who remained in the study through its conclusion had undergraduate and graduate college experience.

Table 10

Residential Treatment Experience in months for Posttest Sample (M and SD.)

	N	Minimum	Maximum	Mean	Std. Deviation
MONTHSRES	26	1	130	47.54	45.685
Valid N (listwise)	26				

The average length of residential experience (in months) of those who remained in the study to its conclusion was 47.5 months.

Mean instrument scores

This section will describe the results of the pre and post-test scores within the intervention and comparison groups on the following instruments: The Professional Quality of Life Revision Four (PRO-QOL R-4), The Defining Issues Test-II (DIT-II), and

the Paragraph Completion Method (PCM). Note that PRO-QOL-4-R yields three subscales: Compassion Fatigue (CF), Compassion Satisfaction (CS), and Burnout (BO). The DIT-II yields two analogous scores: The N2-Score and the P-Score. A description of what the instruments measure, normative data on the instruments, and description of the scores for each group is included after Table 11 which illustrates descriptive data by group on the three outcome measures.

Table 11

Descriptive Statistics by Group for Outcome Measures

Group	PC S	PBO	PCF	PPC M	PPScore	PNScor e	PTCS	PTBO	PTCF	PTPC M	PTPScor e	PTNScor e
Comparison	38.	19.7	13.6	1.4	37.4	33.1	36.2	21.6	13.8	1.7	32.3	30.4
n	4											
N	14	14	14	14	14	14	14	14	14	14	14	14
SD	9.1	5.7836	6.0077	.3189	18.7959	17.0406	7.7774	6.4760	5.9249	.31228	14.8360	14.14233
		4	8	3	3	4	7	8	0		2	
Min	21.	8.00	5.00	1.00	10.00	4.90	25.00	7.00	6.00	1.16	4.00	16.21
	0											
Max	49.	28.00	26.00	2.00	62.00	61.23	49.00	30.00	27.00	2.17	55.00	53.52
	0											
Treatment	38.	18.5	15.4	1.3	21.5	18.9	38.8	20.4	14.9	1.8	30.0	27.2
Mea												
n	7											

N	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
SD	5.6	5.2656	7.9596	2549	12.3029	9.13749	4.8827	3.6793	5.8536	.46079	19.5222	19.83492					
Min	30.	7	5	3	9		2	9	4		2						
Max	50.	12.00	6.00	1.00	4.00	6.03	32.00	13.00	3.00	1.17	6.00	5.90					
	0																
	50.	27.00	31.00	1.67	42.00	39.33	48.00	27.00	24.00	2.67	72.00	71.72					
	0																
Total																	
Mea	38.	19.2	14.5	1.3	30.0	26.9	37.4	21.1	14.3	1.8	31.2	28.9					
n	6																
N	26	26	26	26	26	25	26	26	26	26	26	26					
SD	7.5	5.4749	6.8890	.2864	17.7589	15.6077	6.6035	5.3060	5.8018	.38064	16.8367	16.72416					
		8	1	5	7	7	0	2	6		5						
Min	21.	8.00	5.00	1.00	4.00	4.90	25.00	7.00	3.00	1.16	4.00	5.90					
	0																
Max	50.	28.00	31.00	2.00	62.00	61.23	49.00	30.00	27.00	2.67	72.00	71.72					

Description of instruments, normative scores, and discussion of scores by group

Professional Quality of Life Scale

The Professional Quality of Life Revision R-III (PROQOL-R-III) provides three subscales: Burnout (BO), Compassion Satisfaction (CS), and Compassion Fatigue (CF). This section will discuss the meaning of scores within these particular scales. Then, the mean scores of the comparison and treatment groups will be examined.

The Burnout scale provides a number score and describes the degree to which an individual feels hopeless in their job or is experiencing difficulties in fulfilling the requirements of their work (Stamm, 2005). The average score on this scale is 22; scores below 18 indicate a person feels effective in their occupation, while scores above 22 may indicate a person is suffering from burnout (Stamm, 2005).

The comparison group showed $M = 19.71$ on the pre-test Burnout scale (PBO) and $M = 21.64$ on the post-test (PTBO) showing that their Burnout scores increased during the four month study period. Although, these scores are within the “normal” range, they may indicate worsening effects on burnout in their jobs.

The treatment group scored $M = 18.5$ on the pre-test measurement for Burnout (PBO) and a post-test $M = 20.42$ (PTBO). As in the comparison group, these scores are within the “normal” range but could indicate worsening burnout. This is troubling a central study hypothesis speculated that the DPE training would result in decreased burnout. However, burnout is influenced by several factors outside the scope of this study such as low salaries, lack of benefits, dealing with emotionally and behaviorally disturbed youth, feeling “disconnected” from the administration, long working hours, and lack of clinical supervision. The residential treatment facility employing the intervention

group participants initiated a programmatic move to gaining Medicaid provider status in the state of Virginia during the time period of the study. There were mixed feelings regarding this change as many of the participants expressed concern and apprehension about the proposed changes and felt they had little input into the matter. This could partially account for the non-significant, but increasing burnout scores.

Compassion Satisfaction (CS) describes the pleasure or joy that an individual derives from their work (Stamm, 2005). The average score is 37 with those scoring higher evidencing increasing levels of job fulfillment while those scoring below 33 are considered to achieve decreased happiness in their work (Stamm, 2005).

The comparison group scored $M=38.43$ on the pre-test Compassion Satisfaction (PCS) scale and $M=36.21$ on the post-test (PCS). This represented a slightly decreased job satisfaction during the period of the research study. However, the scores are both in the average range of scores on this scale.

The treatment group scored $M=38.75$ on the pre-test Compassion Satisfaction (PCS) scale and on the posttest (PTCS) $M=38.75$. These scores were unchanged but indicate that the direct care workers appear to be overall satisfied and fulfilled with their work. The intervention did not positively or negatively impact their scores on this scale. Again this trend is disappointing as the DPE training model was hypothesized to positively impact their Compassion Satisfaction scores.

Compassion Fatigue (CF) or secondary trauma indexes the negative effects a mental health worker experiences through their work with victims of trauma (Stamm, 2005). The average score on this scale is a 13 (Stamm, 2005). Those scoring below 17 are not at risk for CF, while those scoring above 17 may be at risk for CF.

The comparison group scored $M = 13.64$ on the pre-test measure of Compassion Fatigue (PCF) and $M = 13.79$ on the post-test measure (PTCF). These scores indicate that the comparison group did not feel they are suffering from CF through their work. Alternatively, the comparison group could have developed adaptive strategies for dealing with or mitigating the effects of CF.

The treatment group scored $M = 15.42$ on the pre-test measurement of Compassion Fatigue (PCF) and a post-test (PTCF) $M = 14.92$. These scores represent “normal” scores with little or no risk of Compassion Fatigue amongst the direct care workers. Although slight and non-significant, the positive decreasing trend in their scores pre to post-test could be an indicator of the training program’s efficacy.

Defining Issues Test-II

The Defining Issues Test-II (DIT-II) is the updated version of the older Defining Issues Test (DIT). The DIT-II provides two scores, a P-score and the more rigorous N-score that purports to have more construct validity than the former (Bebeau & Thoma, 2003). Normative data is still being accumulated for the DIT-II so it should be viewed as being exploratory at this point (Bebeau & Thoma, 2003). The average P-score is $M = 36.74$ and the average N-score is $M = 35.67$ from normative samples categorized by educational level from grade 7-9 to the Ph. D/Ed. D level (Bebeau & Thoma, 2003). Those scoring below 50 utilize primarily lower stage reasoning in making moral decisions i.e. without weighing the needs of the individual versus the needs of society or utilizing a universal code of ethics.

The comparison group had pretest a P-score (PPscore) $M = 37.37$ and an N2-score $M = 33.13$ on the pre-test (PNScore). On the post-test DIT-II, the comparison group had a

P-score $M=32.29$ (PTPScore) and an N2-score $M=30.41$ (PTNScore). These scores are within the average range and indicate that the participants marginally utilize post-conventional reasoning in their moral decision-making and instead rely on maintenance of societal norms or their own personal interests in making moral decisions. Both the N2 and P scores for the comparison group show a slight, downward trend in their scores.

The treatment group had a P-score $M=21.5$ (PPScore) and an N-score (PNScore) $M=18.96$ on the pre-test DIT-II. On the post-test DIT-II the treatment group had a P-score (PTPScore) $M=30.02$ and an N2-score $M=30.41$ (PTNScore). These are large, positive increases that should have shown significance when the analysis was conducted. However, the standard deviations were large on the post-test measurements 19.52 for the P-score and 19.83 for the N2-score respectively. Additionally, the minimum score were 6.00 on the P-score and 5.9 on the N2-score, with the maximum scores being 72.00 for the P-score and 71.72 for the N-score. These large gains are solely attributable to outlier participants. Possible reasons for these large gain scores will be discussed at the conclusion of this chapter.

Paragraph Completion Method

The Paragraph Completion Method (PCM) is a semi projective instrument that measures Conceptual Level or CL (Hunt, Butler, Noy, & Rosser, 1977). CL is assigned a specific stage score going from 0-3. The 0 stage would not be typical of adult aged participants and would more likely be seen in adolescents and teenagers especially in juvenile delinquent populations (Hunt, . The normative data for adults provides a variety of samples populations including university students, community college students,

teacher trainees, and alcoholics in treatment (Hunt et al., 1978). The mean scores on the PCM range from 1.53 to 2.03.

The comparison group scored $M = 1.35$ on the pre-test PCM (PPCM) and a $M = 1.74$ on the posttest (PTPCM). These scores are certainly within the average range for adults. It shows a positive gain score of .39. This could be attributed to being put into a challenging situation as a one on one counselor with emotionally/behaviorally disturbed children and being almost “forced” to grow in their conceptual complexity in dealing with such a population.

The treatment group scored $M = 1.31$ on the pretest PCM (PPCM) and a $M = 1.79$ on the posttest administration (PTPCM). These scores are certainly within the average range for adults. It represents an average gain score of .48. This positive gain could be a result of both the training experience and the difficult and challenging demands of being direct care workers in adolescent residential treatment.

These challenging work conditions are partially responsible for the high job turnover rate in adolescent residential direct care workers. Unfortunately, this study was impacted by the high rate of turnover endemic to the profession. In the intervention group, nine direct care workers who started the training and took the pre-test instruments, either resigned or were fired from the positions. The next section will describe the statistical analyses undertaken to investigate whether significant differences existed between the participants who dropped out of the study and those who did not.

Analysis of Attrition

The study commenced with 37 participants (21 in the intervention group and 16 in the comparison group) who completed the pre-test instruments. The study concluded

with 26 participants (12 in the intervention group and 14 in the comparison group) who completed the post-test instruments. Clearly, attrition was problematic in this study. The residential treatment literature has demonstrated that turnover is a significant problem with direct care workers in adolescent residential treatment. This study was emblematic of both this truism and the difficulty in constructing a rigorous research design while maintaining adequate sample size to generalize to a larger population. Due to this significant drop-out rate, a Chi-Square and MANOVA analyses were conducted comparing those who dropped out to those who completed the intervention training program.

Chi-Square Analysis

The Chi-Square analysis investigated whether the high rate of attrition in the study would be problematic in later analyses. Essentially, this analysis examined whether the drop-out rate was differential and whether or not this attrition caused the data to be significantly discrepant. The concern was that those who dropped out were in some way different from those who stayed in the study and such bias would affect the validity of any conclusions based on the data. No significant differences were detected as evidenced by the Pearson Chi-Square score of 4.006 and the Likelihood Ratio score of 4.294. The values close to 4 suggest that the drop out rate was not differential. Table 12 shows the computations.

Table 12

Chi-Square Analysis of Attrition

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.006(b)	1	.045		
Continuity Correction(a)	2.685	1	.101		
Likelihood Ratio	4.294	1	.038		
Fisher's Exact Test				.071	.048
Linear-by-Linear Association	3.898	1	.048		
N of Valid Cases	37				

a. Computed only for a 2x2 table

b. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 4.76.

MANOVA

The next step involved running a preliminary Multivariate Analysis of Variance (MANOVA) comparing the scores of those who dropped out of the study and those who did not on the pre-test measures. This statistical procedure investigated if there were significant differences on the pre-test measurements between those participants who dropped out and those who did not. Fundamentally, the MANOVA explored if there were pre-existing differences between the participants who dropped out versus those who remained in the study. The analysis revealed no significant effect for Group. Therefore, no bias in the study was indicated by the high rate of drop-outs. The statistics were:

Group (6, 25) = .084, Comparison (6, 25) = .509, and the Group * Comparison = .392

(Table 13 presents a summary of this MANOVA results).

Table 13

MANOVA investigating attrition effect on pretest instruments

Effect		Value	F	Df	Error df	Sig.
Intercept	Pillai's Trace	.957	93.591(a)	6.000	25.000	.000
	Wilks' Lambda	.043	93.591(a)	6.000	25.000	.000
	Hotelling's Trace	22.462	93.591(a)	6.000	25.000	.000
	Roy's Largest Root	22.462	93.591(a)	6.000	25.000	.000
Group	Pillai's Trace	.339	2.139(a)	6.000	25.000	.084
	Wilks' Lambda	.661	2.139(a)	6.000	25.000	.084
	Hotelling's Trace	.513	2.139(a)	6.000	25.000	.084
	Roy's Largest Root	.513	2.139(a)	6.000	25.000	.084
Comp	Pillai's Trace	.178	.903(a)	6.000	25.000	.509
	Wilks' Lambda	.822	.903(a)	6.000	25.000	.509
	Hotelling's Trace	.217	.903(a)	6.000	25.000	.509
	Roy's Largest Root	.217	.903(a)	6.000	25.000	.509
Group * Comp	Pillai's Trace	.208	1.096(a)	6.000	25.000	.392
	Wilks' Lambda	.792	1.096(a)	6.000	25.000	.392
	Hotelling's Trace	.263	1.096(a)	6.000	25.000	.392
	Roy's Largest Root	.263	1.096(a)	6.000	25.000	.392

a. Exact statistic

b. Design: Intercept+Group+Comp+Group * Comp

Formal Analysis of Investigative Hypothesis

This study design incorporated three measures, given at two different times (pre and post test), with two different groups (intervention and comparison). Hence, a 2 x 2 repeated measure Multivariate Analysis of Variance (MANOVA) was used to analyze the pre and post test data between the comparison and treatment groups. This was done to determine any differences between the comparison group (N=14) and the treatment group (N=12). Note that the DIT-II gives two main scores, a P-score and an N2-score, and the P-score was run in this omnibus MANOVA while the N2-score was run separately. This was done because the N-score is more rigorous and results in more missing data due to the higher item data requirements.

Investigative Hypotheses

Hypothesis 1:

The intervention group will show significantly higher posttest scores (the P-score) than the comparison group as measured by the moral development measure (The Defining Issues Test-II)

Hypothesis 2:

The intervention group will show significantly higher posttest scores than the comparison group as measured by the conceptual complexity instrument (The Paragraph Completion Method)

Hypothesis 3:

The intervention group will show significantly lower posttest scores on the Burnout subscale as measured by the Professional Quality of Life Scale.

Hypothesis 4:

The intervention group will show significantly higher posttest scores on the Compassion Satisfaction subscale than the comparison group as measured by the Professional Quality of Life Scale.

Hypothesis 5:

The intervention group will show significantly lower posttest scores on the Compassion Fatigue subscale than the comparison group as measured by the Professional Quality of Life Scale.

Hypothesis 6:

The intervention group will show significantly higher posttest scores on moral development (the N-score) than the comparison group as measured by the Defining Issues Test-II.

Results

Box's Test

Box's test of the Equality of Covariance tests for violations of the normality of the multivariate analysis. No violations were found as indicated by significance= .295.

Please refer to Table 14.

Repeated Measures MANOVA

The MANOVA revealed no significant main effect for Group, $F(5, 20) = .709$, $p > .05$. There was a significant main effect for Time, $F(5, 20) = .000$, $p < .05$; $\eta^2 = .688$. There was no significant Time by Group interaction, $F(5, 20) = .593$, $p > .05$. The MANOVA run separately on the N2-scores revealed no significant main effect for Group, $F(1, 23) = .281$, $p > .05$. The MANOVA run separately on the N2-scores

revealed no significant main effect for Time, $F(1,23)=.156, p>.05$. The MANOVA run separately on the N2-scores revealed no significant Time by Group interaction, $F(1,23)=.067, p>.05$. Since there was a significant multivariate effect for Time alone on the omnibus MANOVA, only the Time effect will be relevant for the individual follow up ANOVAs.

Individual ANOVA analyses were conducted as a follow up test for the significant multivariate effect for Time. The only variable that indicated a significant univariate effect for Time was PCM ($F(1, 24) 2.45, p < .001$). This result does not convey any meaningful information regarding the efficacy of the intervention since it does not indicate any difference by Group. Therefore, this result was considered an artifact of the study not related to the direct question of treatment impact.

All of the investigative hypotheses were based on the assumption of an interaction of Group and Time. Since the MANOVA found no evidence for such an effect, all of the hypotheses were invalidated and not supported by the results of the statistical analyses.

Please refer to Table 15 for the MANOVA test results, Table 16-18 show the results of the Box's Test of Equality of Variance and the Repeated MANOVA analysis, respectively, using the N2-scores from the DIT-II instrument (run separately) and Table 19 for the complete listing of the univariate tests. Figures 1-5 show plots of the test results.

Table 14

Box's Test of the Equality of Co-Variance

Box's M	113.508
F	1.096
df1	55
df2	1759.865
Sig.	.295

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept+Group

Within Subjects Design: time

Table 15

Repeated Measures Analysis of Variance- Summary of F Statistics

Effect			Value	F	Hyp/df	Error df	Sig.	Partial Eta Squa
Between Subjects	Intercept	Pillai's	.993	545.439	5.000	20.000	.000	.9
		Trace						
		Wilks'	.007	545.439	5.000	20.000	.000	.9
		Lambda						
		Hotelling'						
		s Trace	136.360	545.439	5.000	20.000	.000	.9
	Group	Roy's						
		Largest	136.360	545.439	5.000	20.000	.000	.9
		Root						
		Pillai's	.128	.588(a)	5.000	20.000	.709	.1
		Trace						
		Wilks'	.872	.588(a)	5.000	20.000	.709	.1
		Lambda						
		Hotelling'	.147	.588(a)	5.000	20.000	.709	.1
		s Trace						
		Roy's						
		Largest	.147	.588(a)	5.000	20.000	.709	.1
		Root						
Within	time	Pillai's	.688	8.840(a)	5.000	20.000	.000	.6

Subjects	Trace						
	Wilks'	.312	8.840(a)	5.000	20.000	.000	.6
	Lambda						
	Hotelling'	2.210	8.840(a)	5.000	20.000	.000	.6
	s Trace						
	Roy's						
	Largest	2.210	8.840(a)	5.000	20.000	.000	.6
	Root						
	time *						
	Pillai's	.159	.754(a)	5.000	20.000	.593	.1
	Group						
	Trace						
	Wilks'	.841	.754(a)	5.000	20.000	.593	.1
	Lambda						
	Hotelling'	.188	.754(a)	5.000	20.000	.593	.1
	s Trace						
	Roy's						
	Largest	.188	.754(a)	5.000	20.000	.593	.1
	Root						

a Exact statistic

b Design: Intercept+Group

Within Subjects Design: time

Table 16

Box's Test of Equality of Co-Variance for N2-Score analysis

Box's M	13.568
F	4.087
df1	3
df2	79731.358
Sig.	.007

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept+Group

Within Subjects Design: time

Table 17

Repeated Measures Analysis of Variance (N2-Scores)- Summary of F Statistics

Effect		Value	F	Hyp/df	Error df	Sig.	Partial Eta
time	Pillai's Trace	.050	1.221(a)	1.000	23.000	.281	.050
	Wilks'						
	Lambda	.950	1.221(a)	1.000	23.000	.281	.050
	Hotelling's						
	Trace	.053	1.221(a)	1.000	23.000	.281	.050
time *	Roy's Largest						
	Root	.053	1.221(a)	1.000	23.000	.281	.050
Group	Pillai's Trace	.138	3.684(a)	1.000	23.000	.067	.138
	Wilks'						
	Lambda	.862	3.684(a)	1.000	23.000	.067	.138
	Hotelling's						
	Trace	.160	3.684(a)	1.000	23.000	.067	.138
	Roy's Largest						
	Root	.160	3.684(a)	1.000	23.000	.067	.138

a. Exact statistic

b. Design: Intercept+Group

Within Subjects Design: time

Table 18

N-2 Score MANOVA analysis by group-summary of F Statistics

Source	Type III Sum of	df	Mean				Partial Eta
	Squares		Square	F	Sig.		Squared
Intercept	38339.692	1	38339.692	111.159	.000		.829
Group	740.615	1	740.615	2.147	.156		.085
Error	7932.927	23	344.910				

Table 19

Summary of Univariate Tests

Source	Measure	Type III	df	Mean Square	F	Sig	Partial Eta Squared		
Time	bo	Sphericity Assumed	47.770	1	47.770	2.838	.105	.10	
		Greenhouse-Geisser	47.770	1.000	47.770	2.838	.105	.10	
	cs	Huynh-Feldt	47.770	1.000	47.770	2.838	.105	.10	
		Lower-bound	47.770	1.000	47.770	2.838	.105	.10	
		Sphericity Assumed	15.841	1	15.841	1.242	.276	.04	
		Greenhouse-Geisser	15.841	1.000	15.841	1.242	.276	.04	
	cf	Huynh-Feldt	15.841	1.000	15.841	1.242	.276	.04	
		Lower-bound	15.841	1.000	15.841	1.242	.276	.04	
		Sphericity Assumed	.412	1	.412	.011	.919	.00	
		Greenhouse-Geisser	.412	1.000	.412	.011	.919	.00	
	pcm	Huynh-Feldt	.412	1.000	.412	.011	.919	.00	
		Lower-bound	.412	1.000	.412	.011	.919	.00	
		Sphericity Assumed	2.450	1	2.450	24.988	.000	.51	
		Greenhouse-Geisser	2.450	1.000	2.450	24.988	.000	.51	
	psco	Huynh-Feldt	2.450	1.000	2.450	24.988	.000	.51	
		Lower-bound	2.450	1.000	2.450	24.988	.000	.51	
		Sphericity Assumed	38.420	1	38.420	.199	.660	.00	
		Greenhouse-Geisser	38.420	1.000	38.420	.199	.660	.00	
	time * Group	bo	Huynh-Feldt	38.420	1.000	38.420	.199	.660	.00
			Lower-bound	38.420	1.000	38.420	.199	.660	.00
		bo	Sphericity Assumed	.000	1	.000	.000	.996	.00
			Greenhouse-Geisser	.000	1.000	.000	.000	.996	.00
		cs	Huynh-Feldt	.000	1.000	.000	.000	.996	.00
			Lower-bound	.000	1.000	.000	.000	.996	.00
		cs	Sphericity Assumed	15.841	1	15.841	1.242	.276	.04
			Greenhouse-Geisser	15.841	1.000	15.841	1.242	.276	.04
		cf	Huynh-Feldt	15.841	1.000	15.841	1.242	.276	.04
			Lower-bound	15.841	1.000	15.841	1.242	.276	.04
		cf	Sphericity Assumed	1.335	1	1.335	.035	.854	.00

Error(time)	pcm	Greenhouse-Geisser	1.335	1.000	1.335	.035	.854	.00
		Huynh-Feldt	1.335	1.000	1.335	.035	.854	.00
		Lower-bound	1.335	1.000	1.335	.035	.854	.00
		Sphericity Assumed	.033	1	.033	.335	.568	.01
	psco	Greenhouse-Geisser	.033	1.000	.033	.335	.568	.01
		Huynh-Feldt	.033	1.000	.033	.335	.568	.01
		Lower-bound	.033	1.000	.033	.335	.568	.01
		Sphericity Assumed	597.553	1	597.553	3.088	.092	.11
	bo	Greenhouse-Geisser	597.553	1.000	597.553	3.088	.092	.11
		Huynh-Feldt	597.553	1.000	597.553	3.088	.092	.11
		Lower-bound	597.553	1.000	597.553	3.088	.092	.11
		Sphericity Assumed	403.923	24	16.830			
	cs	Greenhouse-Geisser	403.923	24.000	16.830			
		Huynh-Feldt	403.923	24.000	16.830			
		Lower-bound	403.923	24.000	16.830			
		Sphericity Assumed	306.179	24	12.757			
	cf	Greenhouse-Geisser	306.179	24.000	12.757			
		Huynh-Feldt	306.179	24.000	12.757			
		Lower-bound	306.179	24.000	12.757			
		Sphericity Assumed	927.357	24	38.640			
	pcm	Greenhouse-Geisser	927.357	24.000	38.640			
		Huynh-Feldt	927.357	24.000	38.640			
		Lower-bound	927.357	24.000	38.640			
		Sphericity Assumed	2.353	24	.098			
	psco	Greenhouse-Geisser	2.353	24.000	.098			
		Huynh-Feldt	2.353	24.000	.098			
		Lower-bound	2.353	24.000	.098			
		Sphericity Assumed	4644.431	24	193.518			
		Greenhouse-Geisser	4644.431	24.000	193.518			
		Huynh-Feldt	4644.431	24.000	193.518			
		Lower-bound	4644.431	24.000	193.518			

Note: PCS = pretest Compassion Satisfaction, PBO = pretest Burnout, PCF = pretest Compassion Fatigue, PPCM = pretest Paragraph Completion Method, PPScore = pretest P-Score, PNScore = pretest N2-Score, PTCS = posttest Compassion Satisfaction, PTBO = posttest Burnout, PTCF = posttest Compassion Fatigue, PTPCM = posttest Paragraph Completion Method, PTPScore = posttest P-score, and PTNScore = posttest N2-score

Plots of pretest and posttest scores (group by time)

Figure 1. Burnout group means by time

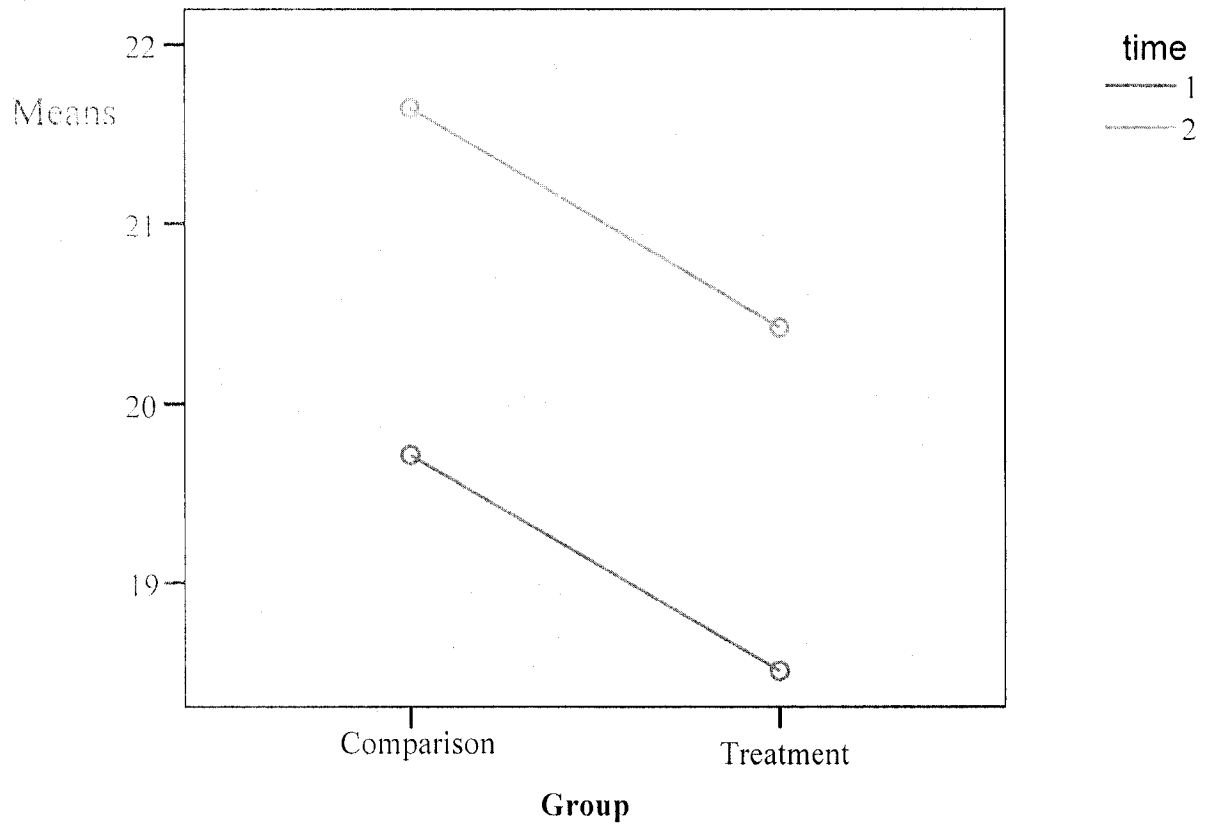


Figure 2. Compassion Satisfaction group means by time

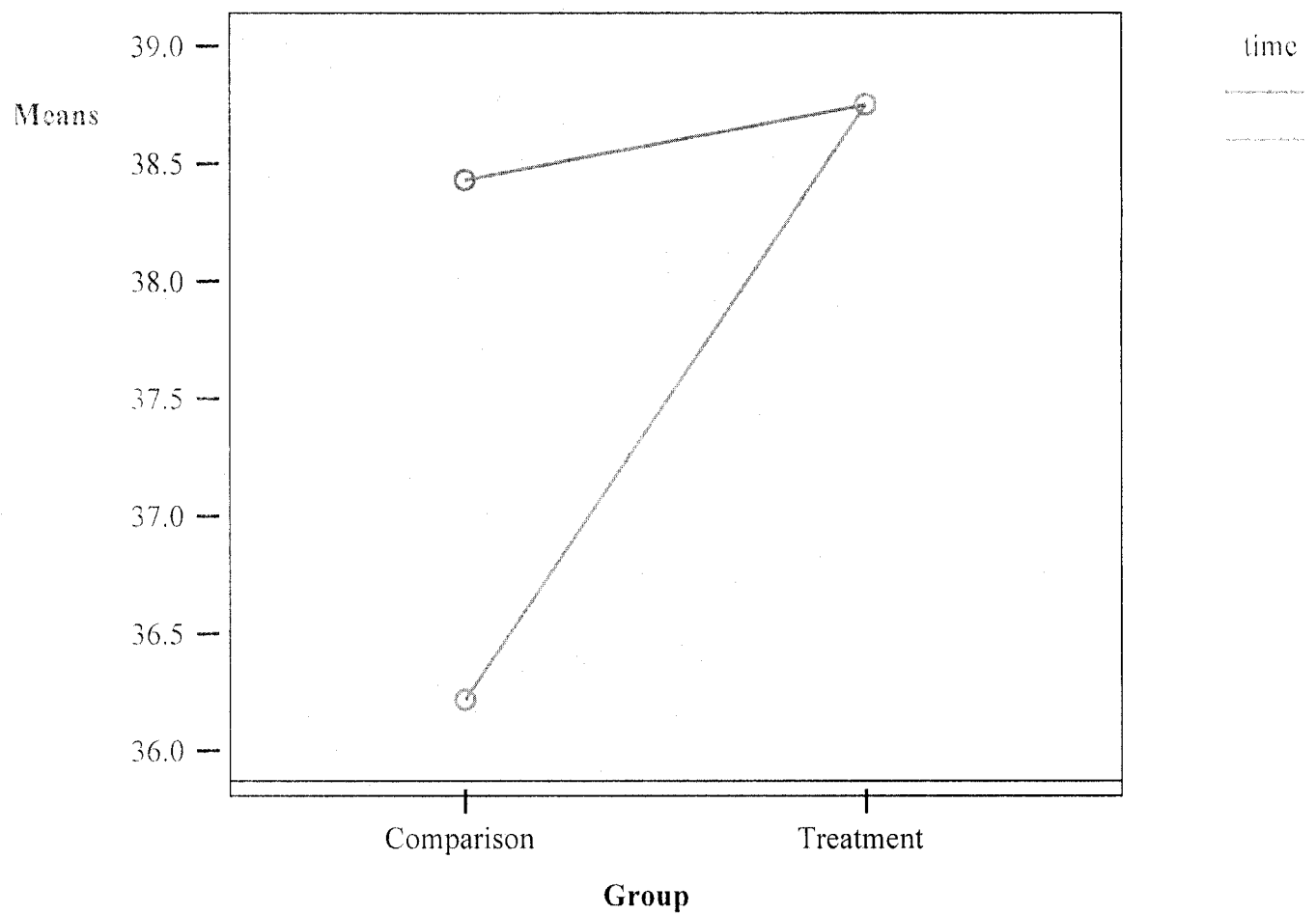


Figure 3. Compassion Fatigue group means by time

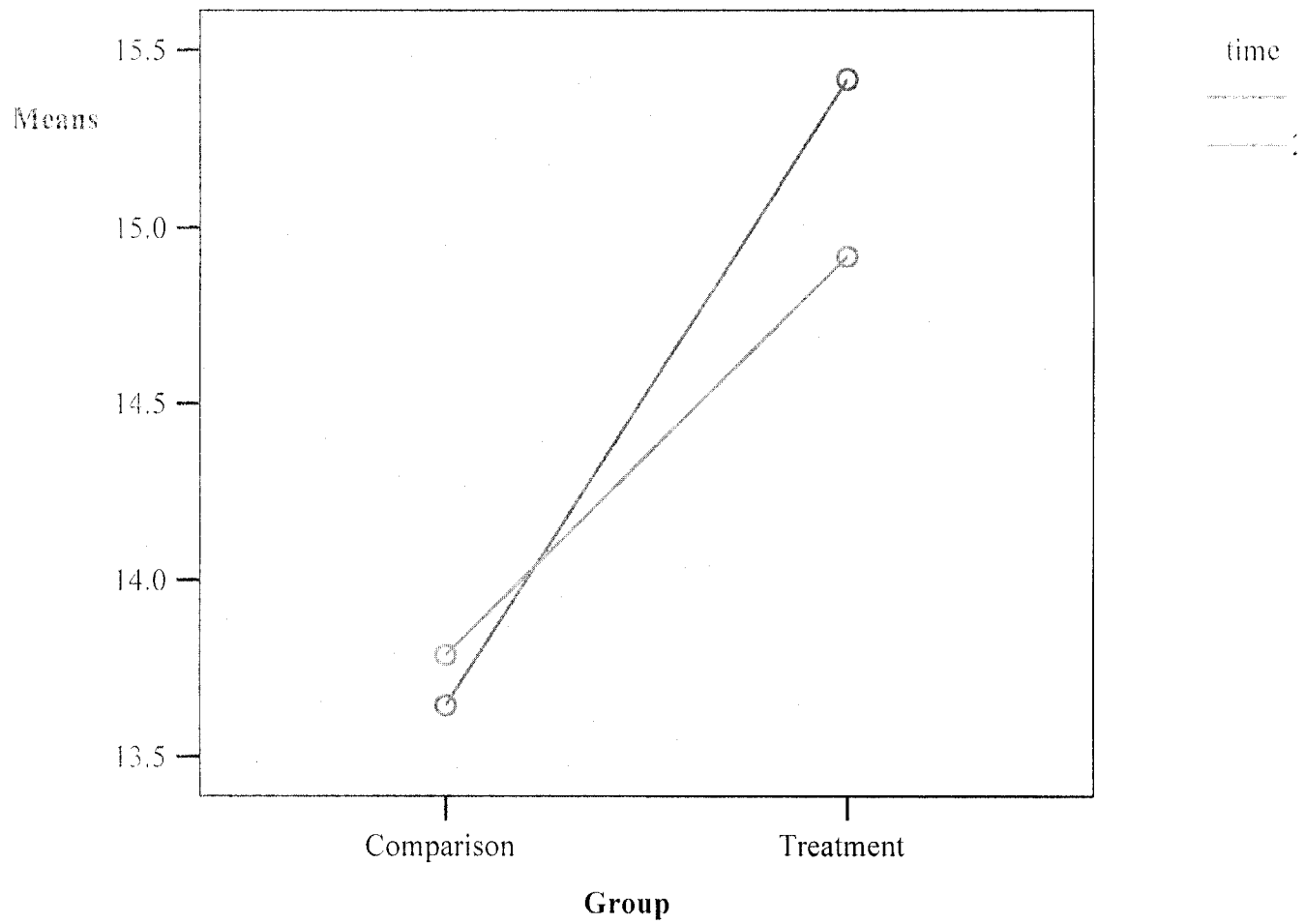


Figure 4. Paragraph Completion Method group means by time

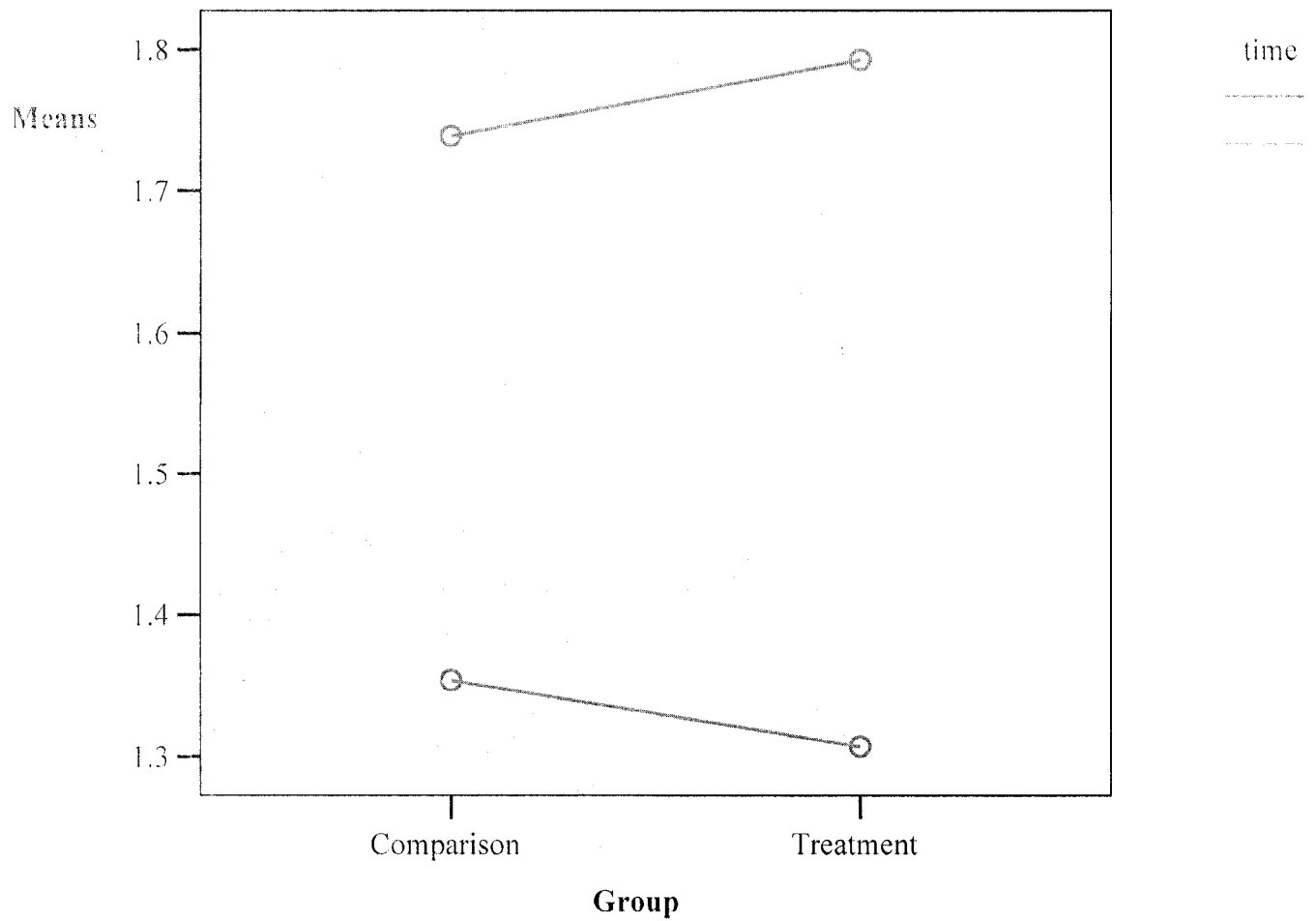


Figure 5. Defining Issues Test-II (P-scores) group means by time

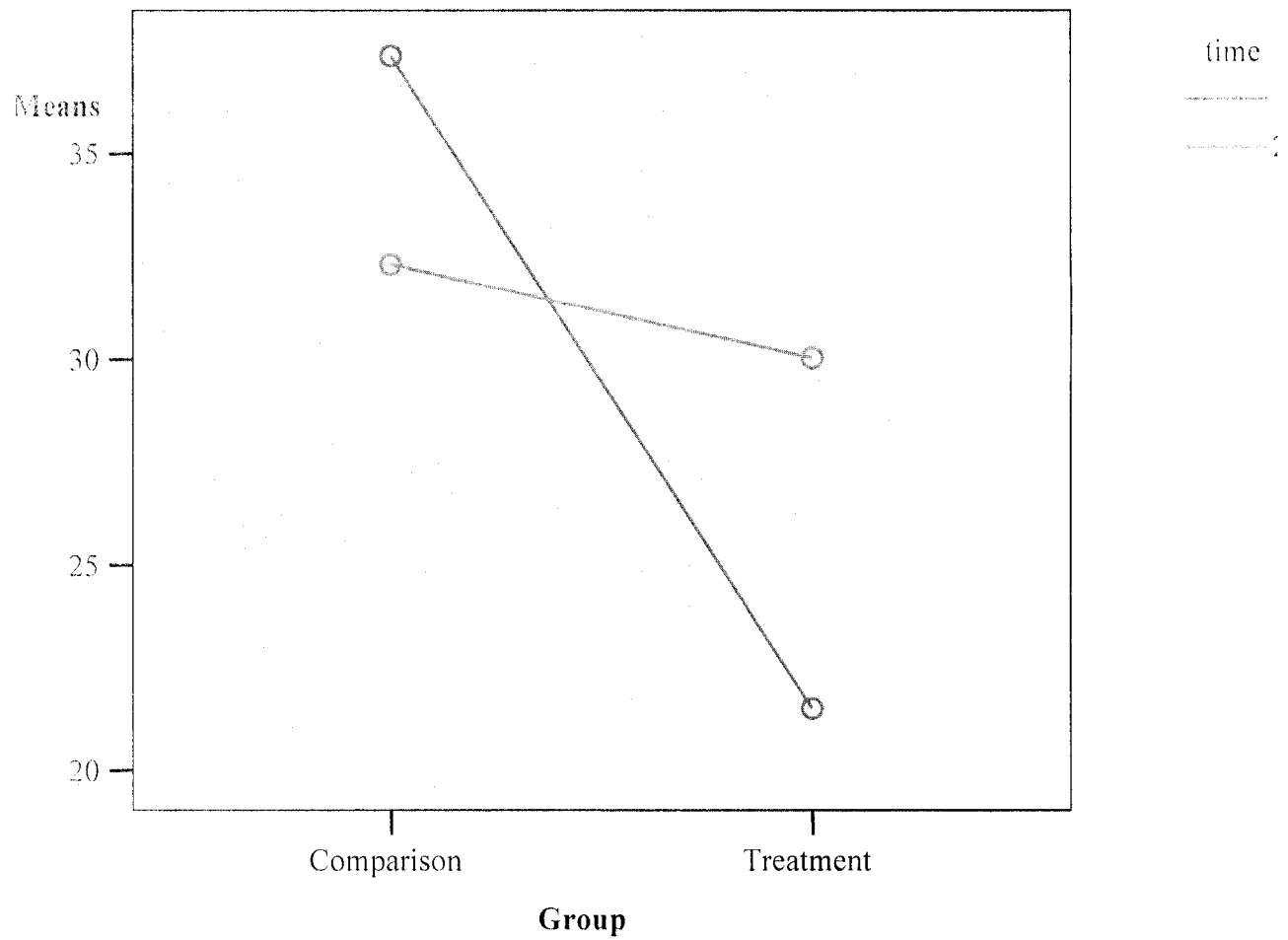
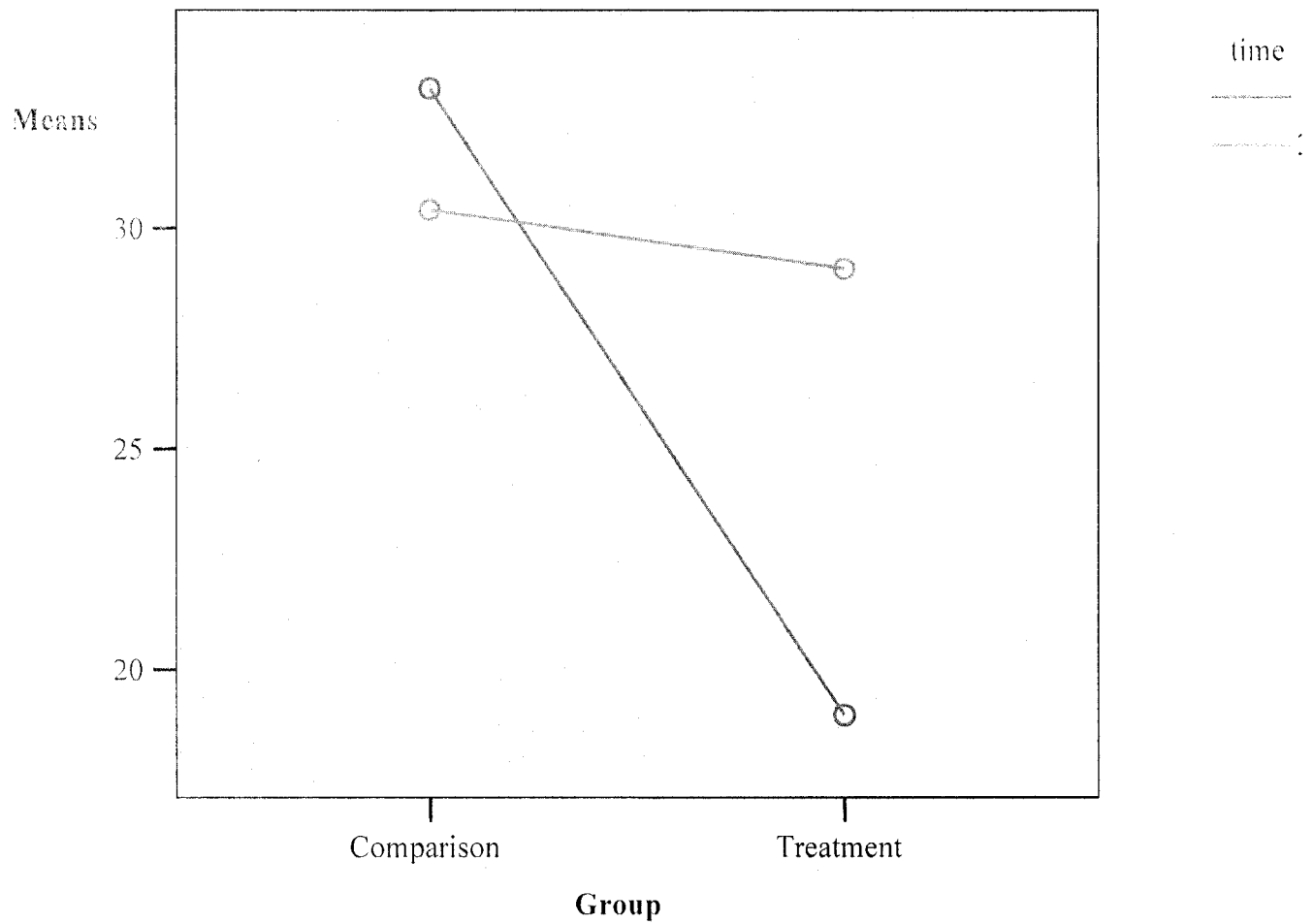


Figure 6. Defining Issues Test –II (N2-scores) group means by time



Additional Findings from the Analyses

Two participants in the intervention group showed unusually high gain scores the moral development instrument (The DIT-II) from pre to post-test. These were positive increases. With the limited sample size, these two participants substantially increased the variability of the entire intervention group. A significant portion of the intervention focused on promoting moral development in the intervention group through dilemma discussions in each training session and journaling about ethical decision-making in residential treatment. Therefore, it is important to examine this phenomenon in more detail.

One participant posted a P-score= 10 and an N-score=6.03 on the pre-test DIT-II and on the post-test DIT-II had a P-score=72 and an N-score=71.72. The other participant showed a P-score=10 and an N-score=8.32 on the pre-test DIT-II and on the post-test DIT-II had a P-score=42 and an N-score=41.04. The former gained over 60 points pre to posttest which is a substantial and remarkable increase while the former gained over 30 points from pre to post-test.

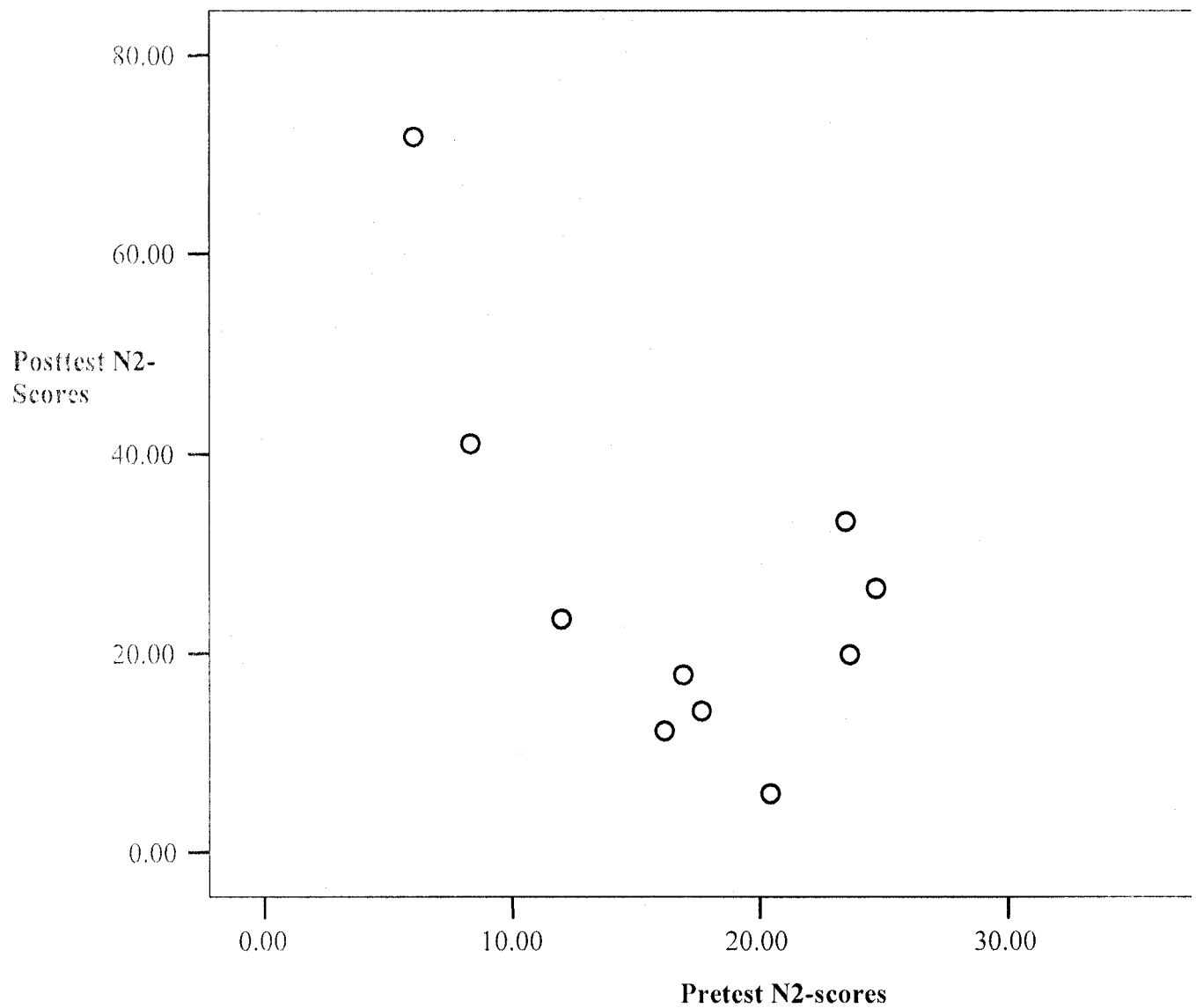
Examining the two outliers, the demographic information shows they were both African-American males, both college-educated, with one having much experience in the residential field while the other had less than a month of experience. Both individuals took the test at home and mailed the test results back to the researcher. Certainly, the possibility existed that someone took the test for them. However, both participants were contacted and indicated that nothing untoward occurred in the taking of the post-test DIT-II. Another possibility was that the two participants were “faking good” on the

instrument. However, the DIT-II has checks for this and their scores were not purged in the reliability check.

The scores seem to indicate that at this individual level, the intervention had a powerful impact on these two participants. When the pre-test was conducted, these two individuals were vocally opposed to being “forced” to attend the trainings. It is certainly possible that this was reflective in their low scores on the pre-test. The two individuals may not have focused or given thoughtful and reflective effort in completing the pre-test instrument. To their credit, both men became active and engaging members in the subsequent training sessions. They completed all the journals (which not all participants did) and appeared to enjoy the lively moral dilemma discussions. The likeliest explanation appears to be that their scores on the pre-test DIT-II were much higher than was actually shown by their pre-test scores. The intervention did impact them, but not as substantially as it appears by simply comparing the pre-test and post-test DIT-II score.

The intervention appears to have made a substantial impact for these two individuals. However, the larger question then becomes, why did statistically positive gains not result for other participants in the intervention group? These questions will be explored in the proceeding chapter. The figure below illustrates the two outlier scores on the DIT-II.

Figure 7. Plot comparing pretest and posttest N2-scores



Chapter 6

Discussion

The residential treatment literature argues that the lack of effective training programs constitutes a pervasive and ongoing problem (Treaby, 2001; Krueger, 2002; Fekaris, 2004). Training programs may be non-existent, haphazard, or incomplete meaning critical areas such as advancing multicultural competencies, improving the requisite knowledge and skills, and adequate supervision are lacking (Krueger, 2002; Mann-Feder & Savicki, 2003). To be fair, comprehensive training programs require time, money, and effort which may be in short supply in any adolescent residential training facility.

Additionally, low salaries, lack of benefits, and stressful working conditions may cause direct care workers to not seek additional training due to already overwhelming demands on their time and energy (Krueger 2002; Sams, 2002). Comprehensive training programs should be provided to improve basic competencies and ideally ameliorate the high rates of burnout and turnover amongst direct care workers. Training is needed to meet the challenging demands of working in adolescent residential treatment.

The problems of burnout and turnover continue to plague the field of adolescent residential treatment (Gable & Haliburton, 2003). Despite the increasing visibility of the problem in the research literature, solutions have been slow to develop or prove successful (Krueger, 2002). Large numbers of direct care workers quit or are fired within a year of starting in the profession (DiRaddo, 2003; Gable & Haliburton, 2003). Certainly, the aforementioned low salaries, high stress, and lack of benefits play a significant part in this crisis (Penn, 2000). However, the lack of comprehensive training

conceivably impacts the high rate of turnover as direct care workers thrown into the residential treatment milieu with little training or preparation struggle to successfully meet the varied challenges. A training program utilizing the cognitive developmental framework provides a template for purposeful training programs.

Cognitive developmental theory provides a foundation upon which comprehensive training programs could be grounded. Empirical support provides a rationale for structuring cognitive developmental training programs (Foster & McAdams, 1996). Cognitive developmental theory encompasses several domains including conceptual and moral development. Conceptual development indexes how an individual makes meaning of their environmental experience to both respond to and attend to ongoing relationships and to manage their environment. Moral development describes an individual's unique framework for processing and reasoning regarding issues of justice and fairness (Rest & Narvaez, 1994). Research has shown that increasing levels of cognitive development enable individuals to function more adaptively and effectively (Foster & McAdams, 1998; Rest & Narvaez, 1994; Chang, 1994). Regarding moral development, studies show a consistent link between higher moral development and increased pro-social behaviors (Bienfet, 2002).

Further, studies have correlated increasing moral development with a variety of characteristics such as increased empathy, tolerance, and altruism which are needed in residential treatment settings (Richardson et al., 1998). Finally, promotion of conceptual complexity results in improved cognitive processing, reduction of prejudice, increased empathy, increased locus of internal control, and improved ability to handle stressful

situations (Coren & Suedfield, 1995; Holloway & Wampold, 1986; Holloway & Wolleat, 1980; Page, 2000).

Certainly, comprehensive training is not a panacea for the multitude of difficulties that exist in adolescent residential treatment. Issues of adequate compensation, lack of sufficient benefits, and a highly stressful working environment are the reality for those seeking employment in this field. However, the lack of training, particularly around issues of moral development and critical thinking development is troubling. Shealy (1996) argues that ethical dilemmas abound in residential treatment include navigating and maintaining appropriate relationships and boundaries with both staff and residents. Still another ethical dilemma is weighing the needs of the individual resident with the needs of the community of residents. The cognitive ability to appropriately reason out these problems would be enhanced by increasing moral development (Rest & Narvaez, 1992).

Increasing cognitive complexity enhances the ability to “read and flex” within a challenging work environment (Foster & McAdams, 1996). The residential treatment environment is challenging and its demands on direct workers illustrate the importance of developing critical thinking skills. The opportunity to receive training and support for a challenging role-taking experience is vital to retaining quality direct care workers (Treaby, 2001). Lack of adequate support and supervision from administrative staff is a recurrent theme in the literature (Krueger, 2002) and was evident in this study. Cognitive developmental theory offers a fresh perspective on these issues of training and support.

This study tested a training program for direct care workers in adolescent residential treatment using a cognitive developmental framework. The domains targeted

and measured by the instruments were moral development and conceptual complexity. A Deliberate Psychological Education (DPE) model was incorporated into the training. The DPE model informed how the actual material was disseminated to the trainees. The focus of the four month long training program was formulated through discussions with administrative staff at the site and through careful study of the literature. The training focused on basic counseling skills, facilitation of groups, multicultural awareness and skills development, ethical decision-making, inclusion of families in residential treatment, self-care and burnout, and application of the DSM-IV-R in treatment.

A comparison group of counselors who work with emotionally and behaviorally disturbed children in school settings and residential treatment workers at an out of state facility were recruited. It was hypothesized that the treatment group who participated in the four month training intervention, would exhibit higher posttest levels of moral development and conceptual complexity than the comparison group. Further, it was hypothesized that the treatment group would show higher posttest scores of Compassion Satisfaction (i.e. job satisfaction) and lower scores of Burnout and Compassion Fatigue (i.e. vicarious trauma).

Unfortunately, the results of the study did not support any of the investigative hypotheses. This was not expected given the demonstrated empirical support for the DPE model (Faubert et al., 1996, Foster & McAdams, 1996; Sprinthall & Scott, 1989). Moral development and conceptual complexity did not significantly increase for the treatment group versus the comparison group. Likewise, compassion satisfaction did not significantly increase for the treatment group. Finally, the levels of burnout and

compassion fatigue did not significantly decrease within the treatment group. These were certainly not the results envisioned.

One reason for the non-results stems from the high rate of attrition that occurred in the study in both groups, but most noticeably in the treatment group. The treatment group started with 21 individuals and ended with 12 individuals representing a loss of 9 direct care workers who quit or were fired by the program. The comparison group started with 16 and lost 2 individuals to finish the study with 14. Methodologically, dropping below 15 participants limits the ability to generalize any results of this study to a larger population. However, the larger concern that may have impacted the lack of significant findings was the resultant loss of variability and power in the study. The lowered power makes it more difficult to pick up on significant changes within the treatment group.

The researcher had no ability to control this high rate of attrition. Several direct care workers quit due to personal reasons or to accept higher paying jobs in less stressful working environments. Some were fired from the facility due to work related infractions and non-compliance with the policies of the facility. Regrettably, the very workers who may have most benefited from training did not have the chance to fully participate. Another problem was the tumultuous nature of the program during the specific time period of the intervention.

Two program managers quit within the first week of the intervention. These are the individuals who provide supervision, support, and crisis intervention to their respective homes. One program manager position remained vacant throughout the time period of the intervention. This lack of support and oversight made already difficult working conditions even more so. Additionally, some of the direct care workers were

initially resistant to the entire training program. However, this is not unexpected as the training program was in addition to other required trainings (medication, CPR, and basic first aid). The experimental group participants had to take time out of their busy schedules to accommodate the training demands.

The full-time employees were not compensated for their time and effort to attend the trainings while the part-time workers received a small stipend. To their credit, the twelve who remained in the intervention group attended all the trainings and became invested in the process. However, some participants were unable to complete all the assigned journals due to other time commitments (work, family, and school responsibilities) and the two week interval between each training session. However, this is a critical component of the DPE model (Sprinthall & Mosher, 1978). This lack of ability for some to critically reflect, receive feedback, and integrate their journaling into their experience as direct care workers may have resulted in the lack of significant findings.

Another problem was a major programmatic change looming on the horizon for those in the intervention group. The program was in the process (since completed) of becoming a Medicaid provider in the state of Virginia. Medicaid provider status confers several important benefits to a program. Such providers have a stronger referral network, higher daily remuneration for each resident, and increased accessibility to serve a larger population of adolescents. However to the direct care workers in the training program these benefits came with a price.

The direct care workers felt the transition to Medicaid provider status was symbolic of losing the community oriented, “grassroots” component of the program.

More significant, becoming a Medicaid provider places increased demands on the direct care workers. Case notes are more numerous and must be done in a specific manner. The number of weekly groups that must be facilitated and documented for the residents significantly increases. More clinical oversight is required.

These can assuredly be seen as positives from an administrative and quality assurance perspective. However, from the collective perspectives of the direct care workers, it was an anxiety provoking experience. Few had any training or experience in facilitating groups or maintaining case notes. They were unclear about what the change would mean to the established routines of the group homes. Clearly, the lack of preparation for the change may have made it difficult for the workers to fully attend to the training. The fact that the intervention program was described to the trainees as being “Medicaid” training when it was not may have accounted for some of the initial resistance.

These factors may have represented too much of an overwhelming challenge to the cognitive structure of the trainees. Cognitive developmental theory maintains that overwhelming demands can lead to anxiety and dissonance which hinders cognitive developmental growth. Hunt’s concept of the ideal developmental mis-match promoting cognitive complexity is negated when the challenge is more than one stage above an individual’s present level of cognitive functioning (Stoltenberg, 1981). The direct care workers may have been overwhelmed by the demands of their jobs, their personal lives, the training, and the impending change to becoming a Medicaid provider facility.

Related to the idea of an optimal developmental mis-match was the inability of the researcher to structure the groups in such a way that individuals with lower and

higher levels of cognitive development could interact in large and small groups. The interplay between such individuals has been offered as another means of promoting cognitive development through the stimulation of contrasting perspectives and viewpoints offered from different levels of developmental functioning (Morgan, 1998). In this study, the same trainings were offered at two different times to provide increased convenience and flexibility for the direct workers. However, this essentially made for different group configurations at each training session with limited ability to promote interactions between those with varying levels of development.

Finally, the training session were conducted every two weeks. The DPE model appears to be most effective when done every week (Sprinthall & Mosher, 1978). However, this schedule was formulated by the program director and the researcher had to weigh the benefits and limitations of meeting every other week versus attempting to find another training facility to use in the research. The opportunity presented to conduct the study at this facility necessitated agreement to such a schedule. But, the lag time between the training sessions may have hindered reflection, processing, and integration of the training sessions that resulted in lack of impact on the cognitive functioning. This impact may be partially responsible for the lack of significant findings.

The scores for the comparison and experimental groups on the moral development instrument are congruent with mean scores for individuals in their freshman and sophomore years of college on the DIT-II (Bebeau & Thoma, 2003). The moral development literature notes that scores below 50 indicate that subjects are primarily utilizing egocentric needs fulfillment or confirming to societal norms reasoning when making moral decisions.

Although the small sample sizes indicate that any generalizations should be viewed with caution, it is troubling that overall the mean scores in both the comparison and treatment groups were at this level. Ethical dilemmas exist in residential treatment and in this sample at least, the participants appear to need more training to promote this capacity. If these scores are emblematic of residential treatment workers in general, then it indicates that this neglected dimension of training bears more attention and focus. Additionally, it could indicate a lack of higher stage reasoning capability and the attendant characteristics found at these stages such as increased empathy, tolerance, and sensitivity to the needs of others.

Compassion satisfaction maintained constant and within the normal range indicating that the trainees were already fairly satisfied with their jobs. Any positive changes wrought by the training may have been mitigated by the aforementioned stressors. The lack of positive findings within the burnout scale is troubling. However, burnout is impacted by several factors outside of the scope of the training including low salaries, lack of supervision, and disconnect between the administration and the line staff.

Other reasons exist to possibly explain the lack of significant findings with the moral development instrument. Cognitive development has been conceptualized as a spiral which may decrease initially to indicate re-organization and then may increase with time. Sprinthall, Thies-Sprinthall, & Oja (1994) termed this decalage, which conceptualizes cognitive growth as being uneven and disorganized due cognitive dissonance. That is, struggling to make meaning of an experience from a new and more complex perspective can be anxiety provoking for participants. This dissonance is seen

as the precursor to cognitive development. This certainly could have occurred within the context of this study.

Conceptual growth (measured by the PCM) does not change quickly according to Hunt et al. (1977) which may explain the lack of significant findings in this study. It is possible that meeting once a week rather than twice a month would have resulted in significant increases on the PCM instrument. Several participants suggested that meeting every week rather than twice a month would have been more helpful in retention and application of training material. The ability to promote an optimal developmental mismatch (Stoltenberg, 1981) was made difficult by not having the same group of participants attend a specific training session. If they had, high and low cognitively complex individuals could have interacted together, providing a richer developmental experience (Morgan, 1998). Finally, this researcher had never attempted a DPE and may have missed viable opportunities to promote cognitive complexity.

The following section will provide a snapshot of journals from the treatment group participants which are broken down into categories useful for organizing their content.

Treatment Group Journals

These categories provide a glimpse into the issues and challenges that direct worker face in adolescent residential treatment face on a daily basis. Material is included both from journals and from notes made by the researchers during large and small group discussions.

Staff training

There is perhaps a common misperception that direct care workers do not see the importance of training. Within the context of this study, there was certainly initial resistance to the training but once the training started this dissipated to acceptance and motivation to learn and apply the training material. One participant wrote “It was my pleasure participating in these trainings. You have given me a lot of information I can use at work”. The participants confirmed that training is lacking and much needed particularly around issues of crisis intervention and management, documentation, basic counseling skills, matching interventions to the populations, and facilitating groups. Another participant stated “We receive so little training that I wished we had more time to cover this material”.

Additionally, participants were motivated to receive the multicultural training and vocalized the need for more time on this area of competence. One participant wrote that “I have a better concept of what my African-American residents face on a daily basis”. Finally, learning about the DSM-IV-R and its application were deemed useful as several participants had no idea what the manual was or how to utilize it. One direct care worker stated “I had no idea what the DSM was before these trainings I think the info will be helpful”. However, the sample in this study resent trainings conducted by those who have not actually been direct care workers. Presumably, the workers believe that a prospective trainer lacks credibility if they have not actually worked in residential treatment. This is a useful concept to keep in mind for residential treatment programs and for researchers who are conducting training with this population. The importance of building trust, rapport, and commonality with trainees was critical factors in overcoming

the initial resistance to the training. These elements promoted an atmosphere of sharing and cohesion that allowed the trainees to truly express and reflect on their experiences as a direct care worker.

Impact of training intervention

Regarding the training sessions one participant wrote “Breaking into small groups during the training gave us the opportunity to discuss the different counseling styles that other professionals use. I found this to be most helpful”. Another said simply that “Overall, I took away valuable information that will aid me in performing my job better”. Another stated that “At first I did not want to attend the trainings. But I soon came to like sharing experiences, exchanging ideas and strategies, and hearing other perspectives”. Finally one participant wrote “It is hard to put into words exactly, but thanks for everything you did in these trainings”. These statements support the premise that a cognitive developmental training model was a useful framework for distillation of knowledge, skills, and competencies pertinent to their work.

Staff communication

The trainees unanimously believed that many problems in a group home setting (i.e. youth behavior) were often attributable to poor communication amongst staff. This included staff not being consistent in adhering to the structure, rules, and protocol of the organization and inability for staff to work together in an effective manner. In a journal one participant wrote “Staff was trying to be a resident’s friend instead of setting appropriate boundaries. The staff became close to a couple of residents in a friend relationship allowing only those in which she was close with to break the rules”. Effective training regarding communication and appropriate boundaries with residents

would be helpful to both staff and the residents. Another wrote that “My biggest problem is not with kids but other staff. They don’t take the job seriously nor have the best interests of the kids at heart”. Still another stated that “I remember one situation where a staff was talking on a cell phone and not properly monitoring the residents. It really pissed me off when a fight broke out due to the negligence of this one staffer”.

Providing structured opportunity for process

Due to time constraints and scheduling conflicts, residential treatment facilities may provide limited opportunities for direct care workers to meet and discuss concerns and situations and to process their experiences. The opportunity to receive feedback, support, and validation of their experience from their peers can be powerful and instructive. One trainee wrote in her journal that “This training has been beneficial as an outlet to gain opinions from other professionals regarding situations in the home I work in. It has given me insight into how to handle situations. Upon first starting the training, I felt I was the only one who needed improvement. Through the training I learned I was not alone”. Another writes “Through the training, your input, and the input of other staff, I feel more prepared to implement necessary changes in my house”. Still another noted “An important thing that came out of the training was the realization that all the staff was faced with the problem of how to unify the staff. It brought to light that staff’s inconsistencies confuses the clients we work with. Through the round table discussion, we were able to gain valuable suggestions on how to ensure that there was consistency among the staff”.

Providing opportunity to make sense of and process the dissonance inducing experiencing of working in residential treatment needs to be a standard component of

staff development and training as these journal entries illustrate. It is important to distinguish between administrative staff meetings and clinical treatment team meetings. These certainly serve a useful and needed function. But, these workers seem to be advocating for a structured time that focuses on their needs, their experiences, and their challenges. Direct care workers can utilize this time to gain new insights, new perspectives, and new strategies for working with the residents while making meaning of their own cognitive dissonance that can be stressful and overwhelming.

Ethical training

Training in ethical decision-making may be overlooked in a residential setting with the numerous other trainings required such as CPR, medication dispensing, and documentation. These are vital and necessary. However, as Shealy (1996) argues ethical dilemmas abound in residential treatment including navigating appropriate boundaries and relationships with both adolescent residents and fellow direct care workers. One participant wrote “Ethics carry over in the interaction with residents and the proper handling of residents in a facility. All too often we hear of adults taking unfair advantage of teenagers and other youths”. Another noted “I feel that ethics can be directly related to our ability to properly help those individuals placed under our care for treatment. Properly using caution and care and maintaining our integrity may be the lesson that each resident may take as an example in life”.

Regarding co-workers one trainee noted “The ethical dilemma that most people have a problem with is working with members of the opposite sex”. Other ethical issues reported in journals included “Staff getting too close to a resident’s family and turning a blind eye” and “Staff not being good role models for the children”. Based on these

journal writings, some type of training in ethical decision making is needed and vitally important. Although not typically a component of training, these statements indicate its worthiness as a standard component of training.

Burnout and turnover

The participants believed programs need to be more protective and pro-active in addressing issues of burnout that lead to poor job performance and employee turnover. One trainee argued that “Our house managers need to stop scheduling the same people every weekend just because they know they won’t complain and will show up. Other staff could work, but they put us in situations where we become stressed out and overwhelmed”. Many participants felt that more training on how to handle burnout and compassion fatigue would be helpful and useful.

One solution would be to pair a long term worker with someone who has just started working in the field. The training sessions had a rich mix of inexperienced and experienced direct care workers. Numerous journals mentioned the helpfulness of the learning from fellow workers who had more experience than they. The caveat would be to ensure that the senior mentoring staff were truly effective direct care workers and were focused on professional development. Seasoned staff that suffer from burnout and are dissatisfied with the profession would not be useful in the role of mentors.

Further, the direct care workers although experiencing stress and challenges through their work were unfamiliar with basic coping strategies for dealing with stress and burnout. The high rate of attrition in the four month training period supports this assertion. Pro-active focus on basic coping strategies to decrease stress could positively impact the high rate of turnover and burnout within the profession. The aforementioned

mentoring program could aid in sharing strategies for coping with the inherent challenges and difficulties facing direct care workers on a daily basis.

Becoming a Medicaid provider

A program that becomes a Medicaid provider for the state gains two immediate benefits; increased referral sources and ability to increase revenues for the program. However, the changeover at least for the workers in this program became challenging and anxiety provoking. Initially, the direct care workers were concerned with the Medicaid requirement to increase the frequency of group counseling and the attendant paperwork required. One wrote "They expect us to do all this Medicaid stuff but no one tells us how". Most of the direct care staff had little or no education and training in documentation and group theory and process. The staff felt they needed concrete and specific training in becoming a Medicaid provider but such training was not forthcoming.

Finally, the staff became concerned with the reality of accepting children with severe emotional and/or behavioral problems that they felt "ill-prepared" to provide the appropriate and needed therapeutic environment. One wrote "The program is changing due to Medicaid and not in a good way". Similar residential programs in the process of or contemplating becoming Medicaid providers should ensure that adequate training and preparation is provided to the direct care staff. Such pre-training would alleviate staff anxiety and improve their competence and confidence in working with Medicaid referred children.

Disconnect between direct care staff and administration

Any business organization deals with tension and communication problems between the front line workers and administrative staff. The milieu of adolescent

residential treatment provides an especially fertile ground for such discontent to arise. If not addressed, such resentment can affect the working performance of the direct care staff. In a field already characterized by low salaries, stressful working conditions, and little or no benefits it is vital that direct care staff and administration maintain productive lines of communication.

The direct care workers in this study felt, at times, that the administration made programmatic decisions without consulting the workers who would be responsible for implementation. Obviously, every decision cannot be discussed and approved by the direct care staff. An organization needs to maintain a chain of command and decision-making hierarchy. However, programs need to find a balance between involving their direct care staff and making them feel like valued contributors to the organization while maintaining the integrity of the organizational structure. The direct care workers in this study who felt minimized and left out of the decision-making process, manifested feelings of anger, frustration, disappointment, and a desire to seek other employment. As one trainee wrote "I want to get away from this organization. I need to feel respected and valued".

The above is an extreme view not shared by all the participants. However, I believe that it illustrates a possible link between turnover and feeling underappreciated and disconnected from the administration. Making direct care staff feel involved in the decision-making process and believing they have a stake in the direction of the program could alleviate some of this discontent. The reality is that workers who prematurely exit the residential treatment profession may find work in other, unrelated fields. This necessitates the difficult process of recruiting, hiring, and training new staff. If

programmatic shortcomings are not addressed, this futile cycle occurs over and over again.

Limitations

Threats to internal validity

Several threats emerged that may have impacted the internal validity of this study. The high rate of attrition led to small treatment and comparison group sizes. The groups at posttest each contained fewer than 15 participants. Therefore, any results and speculation should be viewed with caution regarding the residential treatment field in general and the direct care workers in particular.

History or unexpected events that occurred between pre and posttest may have impacted scores on the dependent measures. During the time of the intervention, the residential treatment facility was undergoing a tumultuous time period. Two case managers had quit and one of these positions remained vacant throughout the time of the intervention. These case managers provide support, supervision, and direction to the direct care workers. Their absence could have caused overwhelming stress and anxiety thereby negatively impacting the promotion of cognitive complexity.

Another issue was the program moving towards becoming a Medicaid provider. As discussed earlier in this chapter, such a move has both positive and negative attributes. The direct care workers in the intervention group were concerned with the changes that would be implemented and their knowledge and skill set to implement the changes. This concern was discussed in both large and small groups and in numerous journals. The apprehension and challenge of this programmatic change may have hampered the efficacy of the training program.

Instrumentation was is another potential area of concern. The Professional Quality of Life 4-R is still considered to be in development and reliability and validity minimal due to lack of normative samples of large size and diverse populations. These concerns should be taken into consideration in considering the results of this study.

Likewise, the Defining Issues Test-II (DIT-II) is considered experimental in nature. There is still a lack of large normative samples representing diversity in educational level, age, and regions of the United States and the world (Bebeau & Thoma, 2003). Although it should be noted that the DIT-II is based on the older DIT which has been the subject of thousands of studies and as such, has a large research base to support its usage. Indeed, the DIT-II appears to improve on the validity of the older DIT (Bebeau & Thoma, 2003).

Threats to external validity

Selection treatment interaction exists when participants are not randomly selected or are volunteers, which bring into the question the circumstances of their participation. In this study, the participants were volunteers but were “strongly encouraged” by the program to attend. Also, as attrition set in and new direct care workers were hired at the facility, these new member could not participate in the training. This could have impacted those who remained in the training as they interacted with those colleagues who were not in the training program.

This experiment illustrates the difficulties in implementing a DPE type training program in the often volatile environment of adolescent residential treatment. The problems of burnout and turnover make it difficult to maintain adequate sample size so as to generate meaningful and generalizable results. The conundrum in adolescent

residential treatment is that increasing cognitive complexity would better prepare workers to meet the challenges of the work environment. However, they must remain at the job and for several months to realize the benefits of the DPE model. It is apparent that a cognitive developmental training framework needs to be embedded in the formal training as a requirement of employment from the beginning. Attempting such a program sporadically or haphazardly during at isolated times in their employment will not be effective.

Recommendations

Several recommendations are apparent for researchers wishing to work with this specific population. Prior experience as in a residential treatment facility seems to be important to the participants to establish credibility and rapport. This is vital to conducting the research with this population. Establishing credibility with the direct care workers provides an environment where initial resistance and hesitancy to participate fully in a comprehensive training can be overcome. An openness to be flexible on the part of the researcher is critical as well. Direct care workers need the a significant amount of time at, especially at the beginning of training, to process their unique experiences, learn from one another, and see different perspectives from other colleagues.

Attrition is a difficult factor to deal with in implementing a rigorous study design with this population. The literature illustrates that around 50% of direct care workers quit, resign, or are fired from their jobs in the first six months (Di Raddo, 2003; Evans et al., 2004). This pattern was apparent within the confines of this study. Any attrition can be problematic in analyzing outcome measures; but attrition that results in group sizes lower than fifteen prevents generalization to larger populations, which is a valid concern

in conducting quantitative research. Striving for large sample sizes with the expectation of attrition is one solution. Another is to ensure adequate incentives such as gift certificates, money, or food which are all powerful motivators.

The careful examination of facility where the prospective research will be conducted is still another crucial consideration. In this study, the switch to becoming a Medicaid provider along with the resignations of the two case managers who provided much support and supervision to the treatment participants undoubtedly impacted the results of the study. Obviously some factors remain outside the scope and control of the researcher. However, being aware of the culture and challenges facing the facility allows for more preparedness and mindfulness on the part of the researcher to deal with such factors.

Administrative support remains a vital part of the success of any research with direct care workers. In this study, the administrative staff was extremely supportive of the training program and proactive in encouraging their staff to attend. Partially, this stance was attributable to ensuring that the administration had input in designing the content of the training material and received feedback on the ongoing training. Failing to solicit the needs and wants of the administration in terms of the training content will certainly doom a research project.

It would be useful to meet weekly with the administration during the intervention to discuss, critique, and receive feedback on the training. The commitment of the administrative staff in meeting the supervisory and training needs of the direct care staff needs to be a focus. In this intervention, the experimental group participants often discussed concerns that could be better addressed in the context of timely supervision.

Residential treatment facilities must make weekly supervision of the direct care staff a programmatic priority. Direct care staffs who receive little supervision may feel isolated and alone in their challenging role in working with at-risk youth.

One error made by this researcher was not meeting with all the participants prior to the pretest data gathering. This would have been helpful to explain the fundamentals of the training, stress the importance of the journaling aspect, and answer any questions or concerns that the participants may have potentially had. Later in the course of training, several participants noted they would have favored a weekly meeting schedule and having the trainings on different days and times other than the ones selected by the administrative staff. Working with both part-time and full-time workers means that weekly work schedules vary from week to week and the meeting times could have been more flexible to increase convenience for the participants.

Finally, not soliciting the input of the direct care workers themselves on the course content to be covered was a mistake. Although the participants seemed to enjoy the training sessions and see the applicability in the course content it would have been better to include their viewpoints and perspectives on what knowledge, skills, and competencies should be included. This would conceivably have given the trainees more ownership and responsibility over the training material content. The course content was gleaned from a thorough review of the residential treatment literature and from speaking to the administrative staff; however the most important perspective (the direct care workers) was neglected.

Another emphasis should be on promoting compassion satisfaction amongst the direct care workers. Stamm (2005) explains that compassion satisfaction indexes the

amount of joy and happiness one derives from their profession. The assumption could be made that direct care workers who are more satisfied with their jobs may remain in the field longer, may be protected from developing symptoms of burnout, and may be more effective in their roles. This is an area that needs more study and exploration. Many factors can impact compassion satisfaction including quantity and quality of supervision, the training the staff receives, and the competency of the direct care workers.

The intent of this intervention was to promote the competency of the experimental groups to meet the challenges of being a direct care worker. Stamm (2005) notes that one component of compassion satisfaction is that feeling that one does a job well is crucial to the amount of satisfaction one derives from their work. Residential treatment facilities would do well to hone in on this particular aspect. A proactive programmatic philosophy of promoting compassion satisfaction amongst its workers could pay positive dividends in terms of positive treatment outcomes.

Positive treatment outcomes are not accidental but require the ability of the staff to promote positive, therapeutic relationships with the at-risk adolescents (Tally, 2000). According to developmental theory, the matching model as proposed by Hunt represents a useful model for direct care worker training and supervision. Holleway and Wampold (1986) noted in the meta-analysis of studies utilizing a matching model that most individuals derive some benefit from high structured learning environments. Certainly, matching the level of structure to the level of cognitive complexity is the most efficacious means of promoting development according to Hunt's theory. However, testing subjects and ascertaining their level of development may not always be feasible or practical. Therefore, amplifying already existing structure in the training and supervision

components for direct care workers may be an effective means of promoting cognitive complexity.

This study has illustrated that lack of structure in training and supervision is problematic in the field of residential treatment. Limited budgets for training, lack of time and effort to provide high quality supervision, and turnover amongst supervisory staff provide an environment where little cognitive development can take place. Prioritizing supervision and training and emphasizing appropriate structure could minimize anxiety provoking cognitive dissonance which in too great an amount inhibits the innate potential of an individual to grow in cognitive complexity.

One area of training that requires attention in residential treatment is around issues of multiculturalism. Multiculturalism impacts both staff and resident relationships but also the working relationships amongst staff. Chase-Fekaris (2004) noted that multicultural training is lacking in adolescent residential treatment. Knowledge, skills, and awareness of multiculturalism as outlined in the American Counseling Association Multicultural Counseling Competencies would prove useful as a focal point for designing training modules for direct care workers. Residential treatment programs bring a diverse group of both workers and residents together in what can be a challenging and sometimes volatile treatment milieu. Equipping the staff with the knowledge and skills to interact with other staff and the residents in multi-culturally sensitive manner provides the opportunity to improve the quality of treatment provided.

In terms of future studies several possibilities are apparent. Qualitative studies with direct care workers could provide rich and meaningful data regarding the challenges and issues they face. Additionally, these studies may offer insights into how best to

structure training and supervision to meet the needs of direct care workers. Correlational studies with large samples of direct care workers would be useful as well. Scores on developmental measures (DIT-II, PCM etc.) could be correlated with variables such as job satisfaction, job longevity, and perceived job competency. These studies could provide valuable support for utilizing a DPE training model. Finally, it would be useful to replicate this study with a larger sample size in an attempt to realize generalizable results.

Future Directions

This section will bring together the information gained from this study as it applies to both being a researcher in the field of residential treatment and attempting to implement a Deliberate Psychological Education model in a residential treatment center.

Research in residential treatment

Residential treatment by its very nature can be both a volatile working environment and research site. Any researcher should be prepared and flexible for training sessions or data gathering meetings to be cancelled due to unforeseen circumstances such as crises. The researcher needs to adapt to this and have alternative plans for gathering data such as mailing instruments to be completed to participants or meeting with participants at alternative times. Having such contingency plans in place prevents being caught unawares when problems arise.

Another potential pitfall is the high rate of attrition endemic to the field of residential treatment. When doing an interventional study where one is pre and post-testing subjects, it is helpful to strive for as large an initial sample as possible. The statistical problems of losing forty or fifty percent of the original sample due to turnover

can be minimized by securing a large sample size at the outset. Related to this is establishing a policy for dealing with large amounts of turnover. Multiple re-testing in the middle of an intervention may provide useful data regarding change even if participants drop-out prior to the completion of the study. Also, being clear about how drop-outs will impact your data analysis aids in dealing with the problem if and when it does occur.

Another recommendation is to take time to learn the culture of the residential treatment center where you are conducting the research. Talk to both the administrative and direct care staff prior to conducting the research. Taking the time to explain the research project and answer questions will pay dividends once the research actually commences. Most importantly, talk to the participants about what they wish to derive from the study. Too often, their opinions and perspectives are not valued and soliciting their input serves to build trust and rapport.

Implementing an DPE model

This study represents a useful framework for replication of future research with direct care workers. A cognitive developmentally informed training model utilizing a DPE has not been published with a sample of direct care workers. Similar studies were found using DPE's with supervisors of direct care workers in residential treatment (Foster & McAdams, 1998) and other helping professions such as counselors and teachers (Rest & Narvaez, 1994). However, no studies utilized the DPE model with direct care workers.

Despite the lack of statistical support for the investigative hypotheses, this study provides a much needed lens on the particular challenges and difficulties faced by this population. The DPE model offers a training model that provides support and challenge,

the opportunity for increasing complex meaning making, and a vehicle for increasing perspective taking. These are much needed in amongst direct care workers. The promotion of cognitive complexity provides the higher order thinking and adaptive behavior needed in this challenging milieu.

Further, the emphasis of this training on ethical development highlights an often neglected aspect of residential treatment training programs (Shealy, 1996; Foster & McAdams, 1998)). Ethical issues are numerous for these workers and promoting moral development seems a logical thesis. Increasing moral development has demonstrated increases in more adaptive, nurturing, and appropriate behaviors in similar populations (Richardson et al., 1998) along with increased empathy and reduction in prejudice (Rest & Narvaez, 1994). Promoting these traits along with the ability to balance the needs of self and others in a more empathetic fashion should be the aim of training.

The training content itself offers a useful template for designing training programs for direct care workers. Exposing direct care workers to basic counseling skills, group facilitation and process, and usage of the DSM-IV-R were deemed useful information by the treatment participants. Discussing crisis intervention skills was likewise a popular training module. Increasing multicultural awareness, knowledge, and competencies is a vitally needed focus amongst all mental health professionals. The sheer diversity of the adolescents in residential treatment argues for attention to issues of multiculturalism.

The spotlight this study places on the continuing problems of burnout and turnover amongst direct care workers, though redundant is needed. Turnover and burnout continue to plague the profession limiting the effectiveness of care and calling into question the current approaches to training and retaining quality direct care staff (Mann-

Feder & Savichi, 2003; Krueger & Smart, 1999). Although the training program did not result in statistically significant decreases in burnout it provides a useful starting point to focus direct care staff training in several areas. These include: Basic stress reduction, increasing knowledge and awareness of burnout, advancing the notion of self-care, and providing adequate training, support, and supervision to alleviate problems that impact burnout and turnover.

Finally, the journals of the treatment participants support the efficacy of this DPE training model. It was well-received and valued by the participants based on their reflections. Residential treatment facilities need to consider the quality and quantity of support and supervision they provide to their direct care staff. Additionally, providing consistent, semi-structured time for staff members to meet with one another appears to be a worthwhile endeavor. The opportunity to share the joys and challenges of their unique experiences, to be truly heard and empathized with by their peers, and being given the opportunity to learn from one another seemed to make a huge impact on the treatment group. Providing such a time and place could be a pro-active approach to honoring and giving meaning to the difficult and challenging job that direct care workers do on a daily basis.

Cognitive developmental models are criticized for being too long and laborious to successfully implement. This training program shows that cognitive developmental models are vitally needed and judging by the journals of the participants applicable to inform training programs for direct care workers in adolescent residential treatment. Being a direct care worker represents a significant role-taking experience. The ability to promote growth cognitive growth and psychological maturity is needed in the

challenging milieu of residential treatment despite the length of time it may take to achieve such gains.

Sprinthall (1994, p.96-97) argued that “If the task at hand involves complex human relationship skills such as accurate empathy, the ability to read and flex, to select the appropriate model from the professional repertoire, then higher order psychological maturity across moral, ego, and conceptual development is clearly requisite”. This statement clearly applies to the plight of direct care workers. It serves as a call to examine both the framework for training and the intent of training. If we continue to offer little support or supervision and training that lacks the hallmarks of cognitive developmental theory we risk perpetuating the cycle of ill-prepared staff and continued turnover. The vast number and needs of the adolescents in residential treatment argues against such a shortsighted approach.

Appendix A
Informed Consent

INFORMED CONSENT

My name is Harry Keener and I am a doctoral student at the College of William and Mary. I am conducting research in an effort to examine the efficacy of a training program for promoting cognitive growth amongst direct care staff employed at adolescent residential treatment centers. The results of this study will ideally add to the body of knowledge about the training of residential treatment workers.

If you decide to participate in this research, you will be asked to complete the following forms, once at the beginning of the study and once at the conclusion. They are:

1. The Informed consent form
2. The Defining Issues Test-II
3. The Paragraph Completion Method
4. The Pro-QOL-R-IV- The Professional Quality of Life Scale Revision 4.

Each form should take about 30 minutes to complete. Additionally, if you are in the experimental group, you will be asked to participate in a 24 week training program. This program consists of meeting once a week for 2 hours. This program involves writing a weekly one page journal and participating in the weekly group discussions.

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. Your participation is entirely voluntary and you may withdraw from this study at any time. Please call the William and Mary Human Subjects Committee 757-221-3901 or Dr. Thomas Ward at 757-221-2317 or email tjward@wm.edu if you have any questions.

Thank you very much for your participation. Results will be available upon request by contacting Harry Keener, hjkeen@wm.edu or 757-645-3733. If you have further questions, please call Dr. Victoria Foster, 757-221-2352 or email her at vafost@wm.edu.

Signed _____

Date _____

Appendix B

Demographics Form

Demographics Form

Directions: Please take a minute to answer the following questions.

a) Age_____

b) Education (Please circle your highest level of education)

GED, High School, College, Graduate Degree, Vocational/Technical College,
Other (Please explain)_____

c) How long have you worked in the field of adolescent residential treatment?
_____ (by yrs. or months)

d) Please check your race/ethnicity:

_____ White/Caucasian

_____ African-American

_____ Asian

_____ American Indian

_____ Hispanic

_____ Pacific Islander

_____ Multiracial

e) Gender: (Please check one) Male_____ Female_____

Thank you, please complete the enclosed instruments.

Appendix C

Professional Quality of Life Scale, Revision 4

(Pro-QOL-R-IV)

Copyright Information

© B. Hudnall Stamm, 1997-2005. *Professional Quality of Life: Compassion Satisfaction*

and

Fatigue Subscales, R-IV (ProQOL). <http://www.isu.edu/~bhstamm>.

ProQOL R-IV

PROFESSIONAL QUALITY OF LIFE SCALE

Compassion Satisfaction and Fatigue Subscales—Revision IV

[Helping] people puts you in direct contact with their 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. Select the number that honestly reflects how frequently you experienced these characteristics 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 feel invigorated after working with those I *[help]*.
7. I find it difficult to separate my personal life from my life as a *[helper]*.
8. I am losing sleep over traumatic experiences of a person I *[help]*.
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 felt “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 case[work]load 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 am proud of what I can do to [help].
 25. As a result of my [helping], I have intrusive, 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 recall important parts of my work with trauma victims.
 29. I am a very sensitive person.
 30. I am happy that I chose to do this work.

Appendix D

Defining Issues Test-II

Please refer to The Center for the Study of Ethical Development at the University of Minnesota for more information as this test is copyrighted.

Appendix E

Paragraph Completion Method

Paragraph Completion Method

On the following pages you will be asked to give your ideas about several topics. Try to write at least three sentences on each topic.

There are no right or wrong answers so give your own ideas and opinions about each topic. Indicate the way you really feel about each topic, not the way others feel or the way you think you should feel.

In general, spend about 3 minutes for each stem.

I. What I think about rules...

2. When I am criticized...

3. What I think about parents...

4. When someone does not agree with me...

5. When I am not sure...

6. When I am told what to do...

Appendix F

Comparison Group Training Description Instrument

Training(s) since February 2006

1) Please check any of the following trainings that you participated in:

_____ Workshops

_____ College Classes

_____ Conferences

_____ Programs or state mandated trainings (i.e. CPR, medication, or First-Aid)

_____ Other (please describe below)

2) Please specify how much time in hours you have spent in training from February,
2006 until the present: _____

Thank You

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