THERAPEUTIC INTERVENTIONS AND ANIMAL ASSISTED THERAPY WITH INCARCERATED FEMALES

by

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STATEMENT OF DISSERTATION APPROVAL

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ABSTRACT

The prison population in the United States is growing at an alarming rate. Incarcerated women manifest distinctly greater psychological distress than do their male counterparts. In addition, these women demonstrate higher rates of mood disorder, substance use disorders, and personality disorders. Ranging from individual and group therapy to vocational training, corrections facilities use various forms of therapeutic interventions in an attempt to provide inmates with the resources necessary to develop healthy coping skills and function successfully in society. For many years corrections facilities have used animals as rehabilitative or therapeutic tools. However, there have been few studies looking at the efficacy of programs using animals with incarcerated populations. This dissertation presents how I examined the impact of an animal assisted therapy group with female inmates at the Utah State Prison. I present three separate articles that I submitted for publication in peer-reviewed journals.

I dedicate this dissertation to my understanding and patient husband, Kory, who has put up with these many years of education and research and who has been my emotional rock through not only the vagaries of graduate school, but my everyday life. I must also thank my beloved friend Rachel who has shared the many uncertainties, challenges and sacrifices for completing this dissertation.

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CHAPTER 1

INTRODUCTION

Prison Population in the United States

According to the U.S. Department of Justice, during 2006, the prison population grew at the fastest rate recorded since 2000. Specifically, the prison population increased by 2.8% compared to an average annual increase of 1.9% from 2000 through 2005 (Sabol, Couture, & Harrision, 2007).

From 2000-2009 the number of state prisoners increased at an average rate of 1.3%. However, from yearend 2006 through 2009, the prison admittance (2.5% decline) and prison release numbers (2.2% increase) converged, resulting in the slowing of the growth of the nation's prison population (West, Sabol & Greenman, 2010).

Female Inmate Population

In 1999 the Bureau of Justice Statistics reported that the per capita number of women involved in corrections (incarceration, probation, and parole) had grown 48% since 1990, compared to their male counterparts who experienced a 27% increase in the per capita number (Greenfield & Snell, 1999). In 2006, the growth rate of the female inmate population was also greater than that of the male population. While the male growth rate was 2.7%, the number of women in prison increased by 4.5%. This growth

rate for female inmates exceeded that of the average annual growth rate of 2.9% from 2000 through 2005 (Sabol et al., 2007).

Incarcerated women do not differ greatly from incarcerated men in terms of basic demographics such as race, ethnic background, and age. However the type and severity of crimes that women are involved in as well as their childhood upbringing, differ substantially (Snell & Morton, 1994). Women are more likely to be incarcerated on property or drug offense and have a much lower rate of violent offense than do men (Sabol et al., 2007).

Female Inmates in Utah

In 2004, the Utah Commission on Criminal and Juvenile Justice collected data on the characteristics of the female prison population in Utah. Three hundred fifty-eight female inmates, housed at the Utah State Prison or county jails in the state of Utah, completed this survey (Utah Commission on Criminal and Juvenile Justice, 2004). They found that nearly half, 44.7%, of the surveyed participants had not completed high school and that 54% reported a total household income of under $10,000 prior to incarceration. They stated that 62.5% of participants reported incarceration for drug related crimes and 77.6% reported they committed their crimes while under the influence of drugs or alcohol. In fact, 50.6% of all respondents reported that they committed their crimes in order to acquire money for drugs.

In this survey, the authors found mental health issues to be of particular concern for this population. More than 28% of participants reported current mental health treatment, and 45.4% reported having had treatment at some point in the past while incarcerated. Fifty-six percent of respondents reported receiving some mental health

treatment in the past while not incarcerated. Most of the women previously attended a residential treatment program and outpatient treatment, while 15.2% reported prior mental health hospitalization (Utah Commission on Criminal and Juvenile Justice, 2004).

Considering their reported lifetime prevalence of abuse, it is not surprising that mental health is a concern for this population. Eighty-five point eight percent of the women incarcerated in Utah report physical or sexual assault at some point during their lifetime. Sixty-nine point three percent reported victimization by sexual assault or rape and 79.1% reported physical assault.

Overall, nationally more female inmates than male inmates report being raised in a single parent home and have family members with histories of incarceration and/or drug use (Snell & Morton, 1994). Further, most incarcerated women report a history of physical and/or sexual abuse (James & Glaze, 2006). For many of them, their histories and this trauma play a role in their pathway to their criminal involvement (Chesney-Lind, 2000).

Personal Struggles and Coping Deficits

It is likely that inmates, many of whom are struggling with mental health concerns, experience heightened emotional distress and therefore utilize less adaptive coping strategies. In a longitudinal study of 291 adults, Aldwin and Revenson (1987) found that people with poorer mental health and experiencing greater stress used less adaptive coping strategies. While the relationship between poor mental health and use of maladaptive coping skills appears bidirectional, Aldwin and Revenson argue that this relationship is best accounted for by a mutually reinforcing causal relationship. In other words, individuals in poorer mental health may experience more stressful life events. The

higher the initial degree of emotional distress, the more likely these individuals are to use maladaptive coping. This cycle increases the emotional distress and increases the likelihood of problems in the future (Aldwin & Revinson, 1987; Felton & Revinson, 1984).

Incarcerated women manifest distinctly greater psychological distress than do their male counterparts. This is evident in higher reports of major depression and PTSD (Browne, Miller, & Maguin, 1999; Burnette & Newman, 2005; Warren et al., 2002). In addition, this population demonstrates higher rates of mood disorder, substance use disorders, and personality disorders, most notably borderline personality disorder (BPD; Chapman, Specht, & Cellucci, 2005; Jordan, Schlenger, Fairbank, & Caddell, 1996; Nee & Farman, 2005).

Individuals with BPD, especially those engaging in suicidal gestures and self-harm, pose a particular concern for corrections staff. Key features of BPD are interpersonal hostility, recurrent suicidal behaviors or self-harm, impulsivity, severe reactivity, highly unstable interpersonal relationships, and persistently unstable self-image (American Psychiatric Association, 2000). Results of some studies indicate that interventions directed at helping inmates develop active, problem focused coping strategies may result in less frequent suicidal behavior among female inmates (Chapman et al., 2005).

Attachment Theory

Many factors contribute to an individual's use of maladaptive coping strategies. Attachment theory asserts that these strategies stem from our belief in the availability of others to provide a secure base (Bowlby, 1988). In response to a caregiver's availability

and consistency in responding to her needs, an infant will develop a subjective view of herself as capable and of others as available to provide a safe haven in times of distress. In this case, the infant usually develops a secure attachment. However, if her caregiver is inconsistent or unavailable in responding to her safety needs, the infant may develop alternative strategies such as tantrums or suppressing their emotional needs. In this case, she likely develops an insecure attachment.

Attachment theory offers a framework for understanding how early relationships affect later psychological functioning (Shorey & Snyder, 2006). Internal representations developed in childhood affect how individuals interpret their abilities to cope and how they utilize relationships throughout their lives. While adaptive during infancy, if unchanged, the alternative strategies developed by the insecurely attached child become maladaptive during adolescents and adulthood. In cases where the child was subjected to abuse or neglect or parented by a psychologically disturbed parent, these strategies can result in the development of personality disorders or other forms of psychopathology (Fonagy, 2000). In fact, some researchers view personality disorders as disorders of attachment (Shaver & Clark, 1994).

Attachment styles are relatively stable across the life span (Bowlby, 1988; Hamilton, 2000; Hazan & Shaver, 1987), but research has shown that they are not fixed (Bowlby, 1973; Rothbard & Shaver, 1994; Shorey & Snyder, 2006). Exposure to factors that challenge existing representations can act as corrective experiences for insecurely attached individuals (Shorey & Snyder, 2006). This concept, “earned security,” describes the classification of individuals once “insecurely attached” who developed a “secure” attachment style over time. In many therapeutic modalities, it is the role of the therapist

to provide a secure base for the client (Bowlby, 1977);,therefore, making the therapeutic relationship one place for this corrective experience to take place.

Animal Assisted Therapy

In the past few decades, researchers have looked at the human-animal relationship to identify how this bond can be used as a corrective relational experience, improving the health, psychological well-being, and overall functioning of various populations (Barker, Knisely, McCain, & Best, 2005; Hines, 2003; Jalongo, Astorino, & Bomboy, 2004; Marr et al., 2000; Motomura, Yagi, & Ohyama, 2004; Parish-Plass, 2008; Prothmann, Bienert, & Ettrich, 2006; Souter & Miller, 2007). These researchers found a variety of methods through which people use animals for therapeutic purposes. The community service model, where animals are rehabilitated so that they are adoptable out to the community, and service animal socialization model, where people train animals to work with individual with various disabilities, are the most common models. However, animal-assisted therapy (AAT) is an intervention that practitioners are using with increased frequency. AAT is a goal-directed intervention in which an animal is a primary element of the treatment process (Delta Society, 2008). It is an interaction between patients and a trained animal and human handler, with a therapeutic objective (Barker & Dawson, 1998). AAT is not a style of therapy. Rather, this approach uses an animal as a tool while operating from the therapist's principle foundational method (Delta Society, 2008). For example, a therapist may utilize a dog to strengthen the therapeutic relationship or to ease communication difficulties.

In addition to AAT, therapy animals help individuals through animal-assisted activities (AAA). AAAs provide social, educational, and recreational benefits for people

during interactions. AAAs do not need to be overseen by a therapist and they do not work toward particular therapeutic goals (Barker & Dawson, 1998).

It is important to note that therapy animals are not service animals (see Table 1.1). A handler utilizes a therapy animal in AAAs or AAT with people who do not necessarily have disabilities. According to the Americans with Disabilities Act, a service animal is trained specifically and individually to assist a person with disabilities (Americans with Disabilities Act, 1996). Since therapy animals operate in various settings with a wide array of individuals that are not disabled, they do not meet the classification of service animals.

AAT is an intervention that can be understood through the lens of attachment theory. AAT is an approach based on emotional connection and relationship. The therapist uses the animal as a tool to assist the client in emotional expression and insight development (Parish-Plass 2008). During the therapy process, the therapist may trigger feelings of uncertainty or perceived threat as she brings up difficult issues. For an insecurely attached client, these feelings typically trigger responses of avoidance or intense attempts to maintain proximity (Mikulincer & Shaver, 2005).The animal's presence during the therapy process can create alternative approaches that may circumvent difficulties that can arise (Parish-Plass 2008).

Research looking at attachment behaviors in offenders has found that secure attachment styles in this population are under-represented compared to general population individuals (Frodi, Dernevik, Sepa, Philipson, & Bragesjö, 2001; T. Ross & Pfäfflin, 2007; van Ijzendoorn, Feldbrugge, Derks, de Ruiter, Verhagen, Philipse et al.,

Table 1.1

Difference Between AAT, AAA, and Service Animals

Approach	Goal	Handler Characteristics
AAT	• Specific Clinical/Therapeutic Goal	• Health/Human Services Professional • Certified By a Human-Animal Services Organization
AAA	• Social, Emotional, Educational, Motivational, Recreational Benefits • No Specific Clinical Goal	• No Professional Credentials Required • Certified By a Human-Animal Services Organization
Service Animals	• Perform Tasks for the Benefit of a Person With a Disability	• A Person With a Physical or Mental Impairment That Substantially Limits One or More of the Major Life Activities of the Individual • No Required Certification

(Americans with Disabilities Act, 1996; Delta Society, 2008)

1997). Therefore, this population may benefit from the inclusion of this approach in current rehabilitative or therapeutic programs.

Research on Animal Assisted Therapy and Animal Assisted Activities

Various researchers examined the effects of AAT and AAA on different populations (Barak, Savorai, Mavashev, & Beni, 2001; Barker & Dawson, 1998; Fournier et al., 2007; Prothmann et al., 2006). Prothmann et al. (2006) investigated possible influences of AAT on the state of mind of children and adolescents who had participated in inpatient psychiatric treatment. They looked at 100 children and adolescents aged 11-20 years. The treatment group consisted of 61 subjects that participated in five individual nondirective free-play therapy sessions with a therapy dog. The control group consisted of 39 wait list children that did not receive the AAT intervention. This study found that the presence of the dog increased alertness, attention, caused more openness and desire for social contact, promoted the perception of healthy and vital factors, and enabled the child to become more psychologically well balanced. In addition, these effects were stronger the worse the child felt before contact with the dog. The authors reported that the children whose state of mind was worse prior to the intervention were the patients whom the hospital was treating for psychosis. Therefore, they ascertained that the heightened improvement was due to the "relationship with reality that is created by an animal" (Prothemann et al., 2006, p.275).

In another study, Barker and Dawson (1998) looked at whether a session of AAT reduced anxiety in hospitalized psychiatric patients and whether reductions were associated with patients' diagnoses. Participants were 230 adult patients. This study

utilized a pre- and posttreatment crossover design to compare the effects of a single AAT session with those of a single therapeutic recreation session.

Results indicated significant reductions in anxiety after the AAT session for patients with diagnoses of psychotic disorders, mood disorders, and other disorders, whereas after the therapeutic recreation sessions only patients with mood disorders showed a significant decrease in anxiety. In addition, the reduction in anxiety following AAT for patients with psychotic disorders was twice as great as that of the recreation session.

In another study, Barak et al. (2001) evaluated the effects of AAT on patients in a psychogeriatric ward. Subjects were 20 elderly individuals with schizophrenia. Ten subjects either were randomly assigned to the experimental or control group. The experimental group participated in 4-hour weekly AAT groups over 12 months. The focus of treatment was to encouraged mobility, interpersonal contact, communication and to reinforced activities of daily living. The control group members convened for reading and discussion of current news. These sessions occurred on the same days as the AAT groups and for a similar amount of time.

They found improvement on two aspects of the assessment used. Both groups improved self-care and the experimental group demonstrated statistically significant improvement in social functioning where improvements were evident at 6 months of treatment and maintained through the end of the study at 12 months.

A meta-analysis of studies reporting on the effectiveness of AAT as a therapeutic intervention further supports this belief. Nimer and Lundahl (2007) reviewed 250 studies. Their investigation identified 49 studies meeting the inclusion criteria of: 1) reported

specifically on AAT, 2) had a minimum of five participants in the treatment group, 3) written in English, and 4) provided sufficient data to compute an effect size. This analysis reported that AAT is generally an effective intervention. Specifically they found that AAT had a positive effect on medical well-being, behavioral outcomes and on reducing Autism spectrum symptoms. Further, they found that four studies that compared AAT with established interventions reported that AAT was as effective as or more effective than other interventions.

These studies show that AAT can improve social functioning and can affect the psychological well-being of mentally ill individuals. In addition, this intervention can strengthen social skills, reduce anxiety and encourage interpersonal growth.

The Use of Animals in Corrections Facilities

Prisons use various forms of interventions for therapeutic purposes. Ranging from individual and group therapy to vocational training, corrections facilities attempt to provide inmates with the resources necessary to develop healthy coping skills and function successfully in society.

One approach utilizes animals. For many years corrections facilities have used animals as rehabilitative or therapeutic tools (Fournier et al., 2007; Furst, 2006; Walsh, 1994). In an attempt to understand the extent of the use of prison-based animal programs (PAPs) in the U.S., Furst (2006) did a national survey of state correctional systems. At the time of this study, 36 states reported using PAPs. The community service model, where prisoners rehabilitate animals so that they are adoptable out to the community, was the most commonly reported program.

The next most frequently reported was service animal socialization programs. According to the survey respondents, the most commonly mentioned benefit was the sense of responsibility developed from caring for the animals. In addition, most respondents reported no negative elements of the program. Those that mentioned negative aspects commonly mentioned staff resistance.

There have been few studies looking at the efficacy of these programs. However, in one study, using a between subject, pre- and posttest design, Fournier et al. (2007) evaluated the effects of a PAP, referred to as a human-animal interaction (HAI) program on prison inmates. The researchers utilized two groups with 48 inmates. The treatment group consisted of 24 inmates who were in the HAI program. The control group consisted of 24 inmates on the HAI wait list.

Results indicated that participation in the HAI program had a beneficial effect. Participants in the HAI program, relative to the control group, demonstrated positive psychosocial changes as evidenced by increased treatment progress, decreased institutional infractions, and improvement in social sensitivity.

Studies evaluating this approach with the female population are also limited and had small sample sizes. Based on the community service model, the Nova Institution for Women in Canada implemented the Pawsitive Directions Canine Program (Richardson-Taylor & Blanchette, 2001). Their unpublished comprehensive evaluation found that, by providing the inmates with the responsibility of caring for and training dogs, this program improved the women's self-esteem, generated positive institutional changes, and altered the community's opinion of these incarcerated women. However, important to note is that

of the 49 women who participated in this program, only three women actually completed. Most attrition was due to parole.

In 1994, Walsh and Mertin looked at changes in self-esteem and depression in eight women participating in a Pets and Therapy (PAT) program. These women were responsible for caring for and training dogs rejected from a program for guide dog training to place in homes in the community. They found significant changes between pre- and posttest scores on both self-esteem and depression. However, similar to the Richardson-Taylor and Blanchette (2001) study, the sample size of this study was also small.

Background

Some prisons use animals as rehabilitative tools, however, the state of Utah was not one of them. In fall 2007, my MSW program placed me at the Utah State Prison in Draper, UT for my second year practicum. During the second half of this placement, I developed and piloted an AAT program with the incarcerated women.

During my search for information on AAT, I discovered a local agency called Intermountain Therapy Animals (ITA). ITA is a nonprofit organization that provides AAT in a variety of settings with the goal of "enhancing quality of life through the human-animal bond" (Intermountain Therapy Animals, 2008). After meeting with the director of the agency and describing to her what I had in mind, I created an 8-week group curriculum to address coping skills, social skills and interpersonal relations using a dog as a therapy tool.

I developed this intervention from the theoretical perspective of attachment theory (see Figure 1). The basis for having the dog present was to see if the participants would

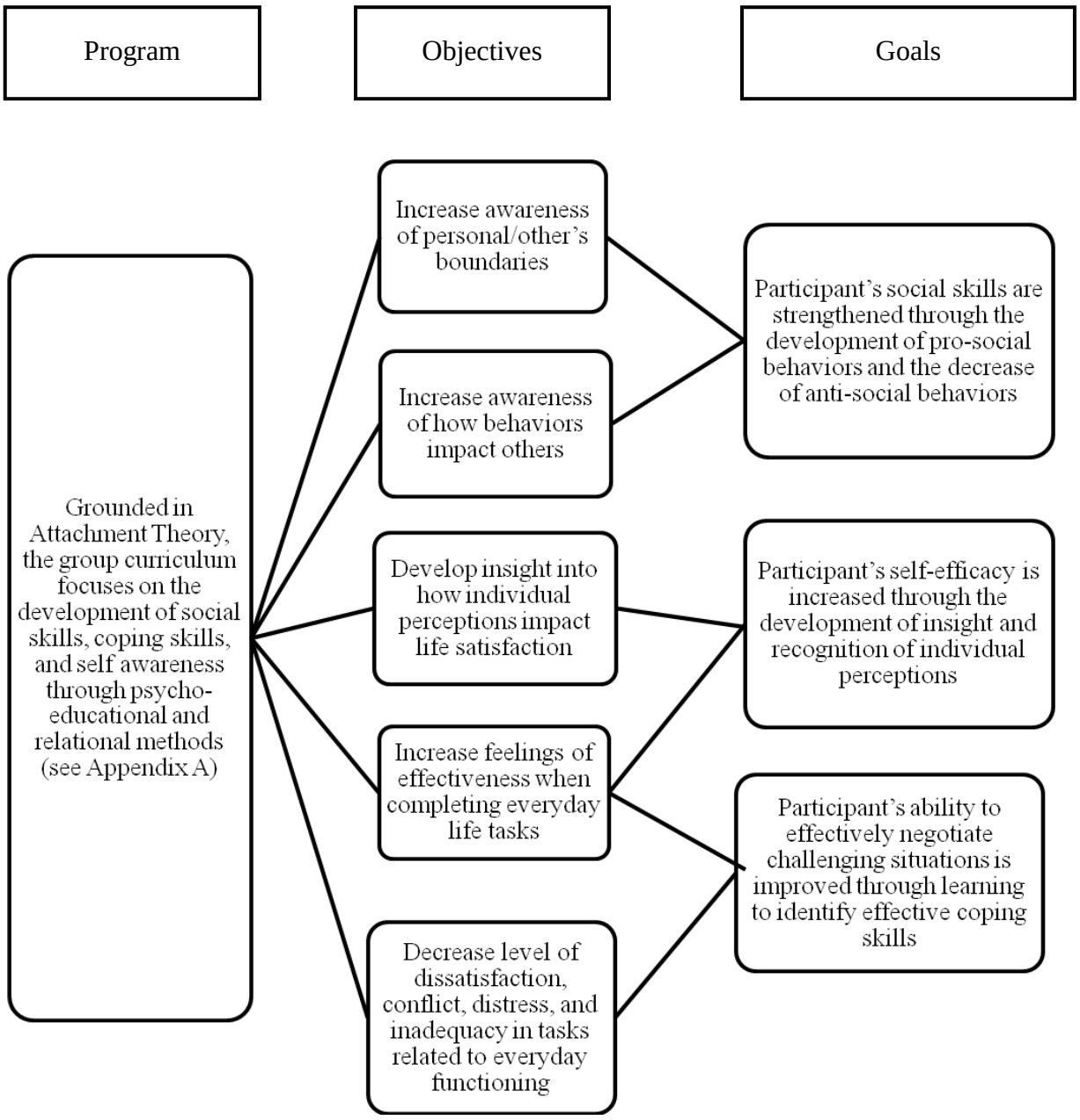

Figure 1. Program Theory Model.

use the relationship that developed between each participant and the dog as a corrective relational experience. The goal was not to change their attachment classification, as classifications are patterns of coping in many areas of life and, at times, varies depending on relationships. To change the overall attachment classification takes an extensive amount of time and therefore is not feasible in this case. Rather, the goal of this group experience was to use the dog as a secure base, helping manage distress, and allowing participants to be open and receptive to the therapeutic value of the group experience. The theory was that participants would use the human-animal relationship to challenge their maladaptive coping strategies developed through their negative internal representations of self.

It was my experience during the process of researching and developing this program that guided the focus of my dissertation. My dissertation sought to answer several questions that I present here in the format of three separate publishable articles.

Methods

This dissertation investigated the use of animals as a therapeutic tool in a correctional setting. Professionals use animals therapeutically in an assortment of environments and with various populations. My focus was on the effect of this method on females currently incarcerated at the Utah State Prison in Draper, Utah.

I approached this topic from the framework of attachment theory. It is my belief that animals provide an essential attachment related component that can strengthen the impact of a therapeutic intervention. Through my research, I have provided some support for this effect, contributing additional evidence of the benefits of human-animal interaction to the field of animal assisted therapy (Jasperson, 2010).

Design

I present this dissertation in the Multiple Article Path (MAP) format. I developed three separate articles, represented as chapters in this dissertation, thematically linked by their focus on therapeutic interventions with the female inmate population. The intent is for each article to extend from the previous article, taking the focus in a slightly new and more specific direction. However, I tie them all together through their focus on the needs of female inmates. I will submit all three articles for publication in peer-reviewed journals. These articles attempted to answer the following questions:

Article #1 (Chapter 2):

1. What therapeutic interventions do corrections facilities use with the incarcerated female population?
2. What is the quality of the research examining these interventions?

Article #2 (Chapter 3):

1. What was the effect of an AAT group utilizing a dog as a therapeutic tool on a "particular" mentally ill female inmate at Utah State Prison?

Article #3 (Chapter 4):

1. How does an AAT group utilizing a dog as a therapeutic tool affect the symptom distress, interpersonal relationships, and social role performance of female inmates at Utah State Prison?

Starting broad, the first article, Chapter 2 of this dissertation, explored types of therapeutic interventions implemented with the female inmate population. I focused on

the various theories behind these interventions, identified their reported effectiveness, looked at study quality, and discussed the therapeutic focuses.

Article two, Chapter 3 of this dissertation, addressed clinical theory and intervention by bringing together my main theoretical orientation of attachment theory with a specific AAT intervention for female inmates at the Utah State Prison. This chapter consists of a literature review identifying research that has focused on AAT, a discussion on how AAT can have a theoretical orientation of attachment theory, a description of a piloted AAT program, and a clinical case example from this program.

The final article, Chapter 4, presents the findings from a study developed from an expansion of the AAT program discussed in the previous chapter, article two. This pretest-posttest control-group design examined whether an AAT group utilizing a dog as a therapeutic tool affected the symptom distress, interpersonal relationships, and social role performance of female inmates at Utah State Prison.

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CHAPTER 2

INTERVENTIONS WITH INCARCERATED FEMALES: A SYSTEMATIC REVIEW

Abstract

Women's trajectories into crime, economic circumstances, and histories of trauma contrast with those of their male counterparts. The rise in the number and the distinctive characteristics of women under criminal justice supervision has generated attention toward the status of women in this system. This systematic review examines therapeutic interventions corrections facilities have used with incarcerated females. Most studies examined interventions for substance abuse and most utilized a cognitive-behavioral theoretical orientation. In addition, high quality studies were sparse. I discuss practice implications and recommendations for future research.

Characteristics of Female Inmates

Research on women's pathways into crime and the nature of crimes that they typically commit suggests that gender matters in the forces that drive their criminal behavior (Chesney-Lind, 2000). Their trajectories into crime, economic circumstances, and histories of trauma contrast with those of their male counterparts (Bloom & Covington, 2009). They typically become involved in criminal behaviors as a result of involvement with drugs often due to emotional trauma, following a man into the criminal

lifestyle, or as a way of coping with poverty due to economic marginalization (Holtfreter & Morash, 2003).

Most incarcerated women have histories of trauma are economically marginalized, and come from families where incarceration or substance use is common (Greenfield & Snell, 1999).According to a Bureau of Justice Statistics report released in 2000, about 37% of women reported monthly incomes of less than $600 in contrast to 28% of male inmates. In addition, 30% of female inmates, compared to just under 8% of male inmates, reported receiving welfare assistance just prior to the arrest that brought them to prison Greenfield & Snell, 1999).

Forty-three percent of female inmates, compared to 12.2% of their male counterparts reported a history of physical or sexual abuse. An even greater distinction is the age that respondents reported the abuse occurred. For women, 31.7% occurred prior to age 18 and 24.5% after age 18 (Note: this is not an either/or. For some, they experienced the abuse both prior to age 18 and after age 18.) For men, 10.7% reported the abuse occurred prior to age 18 with only 3% after age 18 (Snell & Morton, 1994). This continued abuse into adulthood is a unique characteristic to the female incarcerated population is should be taken into consideration when planning programming needs (Chesney-Lind, 2000).

Mental Health Needs of Female Inmates

Incarceration rates for females have been steadily increasing. From 2000-2007, the average growth rate of incarcerated females was 3%. This was 1.1% higher than that of their male counterparts (Sabol, West, & Cooper, 2009). With this increasing population comes a unique set of mental health concerns. At midyear 2005,

approximately 73% of females in state prisons had a mental health problem. Twenty-three percent of females incarcerated in state prisons indicated that a mental health professional had diagnosed them with a mental disorder in the past 12 months. In addition, women in state corrections custody reporting mental health concerns were more likely than those without mental health concerns to meet criteria for substance abuse or dependence, to be homeless in the year before arrest, and to report past physical or sexual abuse (James & Glaze, 2006).

This rise in the number and the distinctive mental health concerns of women under criminal justice supervision has generated attention toward the status of women in this system and to the unique conditions they encounter (Bloom, Owen, & Covington, 2004). There mental health struggles, histories of trauma, and economic circumstances are often relevant determinants of their crimes. Therefore, programs addressing these components are necessary (Holtfreter & Morash, 2003).

It is important to develop programs with theoretical approaches and therapeutic foci that are congruent with the lives of these women (Bloom, 1999). The high rates of victimization and poor economic circumstances highlight two important areas of therapeutic interest for this population. Further, mental health interventions with incarcerated women are mostly cognitive behavioral approaches. Researchers have identified this approach as effective for the male inmates. However, research identifying this effectiveness with women remains limited (Spiropoulos, Spruance, Van Voorhis, & Schmidtt, 2005).

Research on Interventions Used with Prison Populations

Much research has evaluated the effectiveness of rehabilitative approaches with prisoners (Dowden & Andrews, 1999). In 1974, Robert Martinson's divisive publication, *What works? Questions and answers about prison reform*, reporting on the lack of success of rehabilitation attempts with this population, created controversy in the field of criminal justice research. Researchers refute these findings by providing scientific evaluations of various interventions (McGuire, 1995). Although there are studies examining the effectiveness of correctional programs, whether or not these studies represent quality research remains in question. The issue of quality is a relevant concern because reliable and valid information serves as the basis for beliefs and decisions. If we make a decision based on inaccurate information, the results can be detrimental.

Research on interventions used with the female population is still in the early stages. With the relatively recent increase in the presence of this unique population, researchers continue familiarizing themselves with the needs of these women and create programs that address their distinctive concerns (Callhoun, 2010).

This systematic review examines therapeutic interventions corrections facilities use with the female incarcerated population. The purpose of this study is to answer two questions: 1) What therapeutic interventions do corrections facilities use with incarcerated females? 2) What is the quality of the research examining these interventions?

To address the first research question, this chapter will highlight each study's therapeutic focus and theoretical orientation, the intervention and its purpose, and the results of each study. While examining what therapeutic interventions corrections

facilities use with the incarcerated female population, this systematic review will explore theoretical orientation in order to ascertain what theoretical approaches are being used with this population and the reported effectiveness of these approaches. To address the second research question a description is given of we will describe the study design, rate the study quality based on specified criteria, and discuss these ratings.

Methods

Data Collection

We conducted three searches between February 15, 2010 and May 31, 2010. We describe the processes and results of each search below. We conducted our primary search between February 15, 2010 and February 28, 2010 using internet databases to identify relevant articles. We used the following databases: EBSCO's ERIC, Psych Articles, Academic Search Premier, Psych INFO, Psychological and Behavioral Science Collection, Women's Studies International, Illumina Criminal Justice Abstracts, Illumina Sociological Abstracts, Illumina-Social Services Abstracts, and OVID Social Work Abstracts. We chose these databases because they cover a wide range of disciplines. The search terms used were as follows: corrections, prison, detention, female prisoners, female inmates, female offenders, incarcerated females, incarcerated women, interventions, therapeutic programs, rehabilitative programs, depression, and anxiety. See Table 2.1 for results of this search.

We prescreened abstracts for the following criteria: (a) target population of the study identified as incarcerated adult females (b) therapeutic or rehabilitative program described and empirically evaluated, (c) treatment outcomes measured (d) published in a peer-reviewed journal (e.g., no dissertations or books), and (e) published in English.

Table 2.1

Primary Search Strategy

Database	Search Terms	Number of Hits	Secured for Review
Illumina-Criminal Justice Abstracts	correction*, prison*, detention*, female prisoner*, female inmate*, female offender*, incarcerated female*, incarcerated women, intervention*, therap* program*, rehab* program*, depression, and anxiety	4	1
Ebsco-ERIC, Psych Articles, Medline, Academic Search Premier, Psych INFO, Psychology and Behavioral Science Collection, Women's Studies International	Abstract Search: woman or women or female, inmate* or convict* or prisoner* or offender*, corrections* or AB prison* or AB detention*, intervention* or therap* program or rehab* program, depression or anxiety	273	
	Limiters - Scholarly (Peer Reviewed) Journals; Gender: Female; Age Related: Adult: 19-44 years, Middle Aged: 45-64 years, Middle Aged + Aged: 45 + years; Age Groups: Adulthood (18 yrs & older); English; Language: English; Age Groups: Adulthood (18 yrs & older)	148	19
Ovid-Social Work Abstracts	corrections or prison or detention AND female or woman or women AND inmate or prisoner or incarcerated AND therapeutic or rehabilitative or intervention AND depression or anxiety	1	1
	corrections or prison or detention AND female or woman or women AND inmate or prisoner or incarcerated AND therapeutic or rehabilitative or intervention	1	1
Illumina-Social Services Abstract	corrections or prison or detention AND female or woman or women AND inmate or prisoner or incarcerated AND therapeutic or rehabilitative or intervention AND depression or anxiety	40	3
	corrections or prison or detention AND female or woman or women AND inmate or prisoner or incarcerated AND therapeutic or rehabilitative or intervention NOT Juven* or adolescent*	66	10

Peer-review is a method employed to maintain research standards and provide credibility. Because this systematic review was looking for high quality research, we required publication in a peer-reviewed. We included only articles written in English because the author's primary language is English and because of the possibility of losing content and context in translation.

In cases where the target populations were both males and females, we included the article if the authors made the data from the results of the female population explicit. If we could not make this distinction, the study was not included.

If the abstract of the article appeared potentially relevant, we secured the complete article for review. In cases where there was no abstract, we secured the article and reviewed for relevancy. After we secured all potential studies, we evaluated them for relevancy. We excluded articles if we found that they did not meet the specified inclusion criteria, if information was not included regarding the inclusion criteria, or if the articles themselves were not relevant to the topic. We classified studies as irrelevant and/or excluded them for the following reasons: 1) authors did not specify the sex/gender of intervention participants; 2) the study reported that inmates did not participate in a particular program but were merely under the care of a psychiatrist or mental health worker; 3) authors identified the study population as parolees/probationers with a treatment program that was community based; 4) article reported on a case study; 5) study did not present formally gathered data 6) authors provided a program description only; or 7) the analysis was qualitative only.

While we excluded qualitative studies from this systematic review, we did include studies that used a mixed method design of qualitative and quantitative measures but only

examined the quantitative findings. In addition, we included studies that looked at both male and female offenders, but examined the findings only for female offenders.

As a way of identifying possible articles that we may have missed in the initial search, we conducted a second database search on March 31, 2010. This search was of the Cochran Library and focused on identifying systematic reviews or meta-analyses that we could reviewed for relevant articles. We found two articles: a protocol for a review by Dowling and Gardner (2005) and a meta-analysis by Dowden and Andrews (1999). From the Dowling and Gardner (2005) manuscript, we found one relevant study and secured for this review. We found two additional studies through examination of the Dowden and Andrews (1999) references.

Because of the specific focus on women and criminal justice, on May 31, 2010 we conducted a full review of all articles in the journal *Women and Criminal Justice*. This search yielded no additional studies.

Data Analysis

We organized the included studies into Tables 2.2 and 2.3 for ease of overview. Table 2.2 describes the targeted populations, intervention, intervention theory, and the study purpose. We included the category "target population" because, while the inclusion criteria states the target population must be incarcerated adult females, some studies specify specific additional characteristics that may be important distinctions and may give context to the intervention focus and results. "Intervention" describes the specific program and therapeutic focus identified by the authors of each study. "Theoretical orientation" describes the intervention theory. For some studies, the article authors explicitly stated this. For others, we deduced what the theoretical orientation was based

on the detailed description of the intervention. The "study purpose" describes what the author's of each article specify as the overall goal of the intervention. All three components directly relate to the research question of this study.

Table 2.3 describes the study design, variables examined, and the study findings. We included study design because it is an important element of study quality. "Variables examined" provides context to the study purpose and findings. "Study findings" describe the interpreted results of the intervention implementation. All three components provide a means of examining the various differences between the studies and address the first research question.

Study Quality

We assessed study quality by identifying the presence of specific variables in each article. See Table 2.4 for specific quality criteria and ratings. We gave each variable a score. A lower score indicates either a weaker study design or a lack of information reported.

Results

The initial search generated 31 potential studies. A secondary brief review of secured studies yielded what appeared to be 19 relevant articles, six irrelevant articles, and five studies needing further review or a second opinion. The final review resulted in the exclusion of the five studies that were uncertain, leaving 19 articles that met all inclusion criteria. Publication dates of these articles ranged from 1974 to 2009 with median of 2001.

Therapeutic Focus

Therapeutic focus among these studies varied greatly. Seven studies targeted substance abuse, albeit from different perspectives. For example, Sacks (2008) examined the effectiveness of a therapeutic community modified for female offenders and looked at substance abuse as one component of the efficiency of this intervention modality. Kubiak (2004) compared participants with co-occurring PTSD to those without PTSD on treatment fidelity, relapse, and recidivism, while Kubiak et al. (2004) examined social and psychological functional changes among pregnant and substance-dependent female.

When not targeting substance abuse, studies addressed job related behaviors, smoking cessation, grieving, the impact of education achievements during incarceration, parenting training, mental health symptoms, emotional turmoil associated with caring for people living with HIV/AIDS, Correctional adjustment, criminal thinking, HIV risk reduction, and traumatic risk reduction.

Theoretical Orientation

For many studies, the theoretical orientation of each study was not explicitly identified (Burdon, Messina, & Prendergast, 2004; Johnson, Shearon, & Britton, 1974; Kubiak et al., 2004; Valentine & Smith, 2001; Wexler, Falkin, & Lipton, 1990). Through reading the intervention descriptions, we could usually deduce a Cognitive Behavioral (CBT) approach implicitly for a few of the studies (Calabrese & Hawkins, 1988; Ferszt, 2009; Moore & Clement, 1998). This finding is consistent with other research that has identified a trend in corrections of transferring CBT programs designed for men to the female population (Chesney-Lind, 2000; Spiropoulos et al., 2005).

Table 2.2

Search Results (A)

Source	Population	Intervention	Theoretical Orientation	Purpose
Burdon et al., 2004	• Inmates in California • Female inmates N=2520	• TC substance abuse treatment program • 10 prison-based TC treatment programs in California with Integrated Substance Abuse Programs	• Not specified	• Identify possible predictors of participation in aftercare and 12-month return to custody
Calabrese & Hawkins, 1988	Study 1: • 2 women (ages 21 and 22) Study 2: • 3 women (ages 23, 22, and 23)	• Office-based Training: 2 hour session identifying and rationalizing the need to change behaviors and rehearsing more effective behavior (specific to participant) • In Vivo (on site) Training: In class observation and training	• CBT (deduced)	• Evaluate whether rehabilitation is possible and whether job related social behaviors can be part of this rehabilitation
Cropsey et al., 2008	• Women in a state prison in the southern United States N=539 women • Treatment N=250 • Control N=289	• 10-week mood management group intervention combined with nicotine replacement therapy.	• CBT	• Examine the efficacy of a combined pharmacological and behavioral smoking cessation intervention

Table 2.2 (Continued)

Source	Population	Intervention	Theoretical Orientation	Purpose
Farrell, 2000	• Women in a Delaware prison • Treatment N=41 • Control N=38	• Treatment: CREST TC • Control: Work release program	• Social Disorganization Theory • Control Theory	• Measure the effect of social support on drug use and return to criminal activity by identifying variables indicative of either formal or informal social support • Examine whether participation in a TC serves as one factor of post-incarceration support system building
Ferszt, 209	• Women from a women's prison in the Northeast • Treatment N=21 • Control N=15	• 12-week psychosocial group called "Houses of Healing: A Prisoner's Guide to Inner Power and Freedom"	• CBT (deduced) • Restorative Justice	• Examine the impact of the identified variables on grieving female inmates
Hall et al., 2004	• Women from a California prison • Treatment N=119 • Comparison N=96	• Treatment group:"Forever Free": 6-month intensive in prison followed by community based substance abuse treatment program	• CBT	• Seeks to determine which factors predicted better outcomes for study participants • Examines outcomes among participants in the "Forever Free Program" using a prospective, longitudinal design

Table 2.2 (Continued)

Source	Population	Intervention	Theoretical Orientation	Purpose
		• Comparison group: "Life Plan for Recovery" program-8-week, 3 hours/day substance abuse course		
Johnson et al., 1974	• Women released from North Carolina Correctional Center for Women • Treatment N=100 • Control N=100	• Retrospective evaluation ○ January 1 1963 to March 31, 1969 • Treatment: G.E.D. certificate received during incarceration • Control: No G.E.D. certificate received during incarceration	• Not specified	• Assess whether successful completion of an educational program helped reduce recidivism
Kubiak, 2004	• Inmates voluntarily in a residential substance abuse program • Female N=60	• A residential substance abuse program located at the participant's respective institution	• CBT	• Compare study participants with co-occurring PTSD and those without • Examine treatment adherence, relapse, and recidivism
Kubiak et al., 2004	• Pregnant women with a history of drug/alcohol dependence, willing to actively parent	• 6-9 month community-based residential program	• Not specified	• Examine social and psychological functional changes among pregnant and substance-dependent female

Table 2.2 (Continued)

Source	Population	Intervention	Theoretical Orientation	Purpose
	their newborns • N=27			
Moore & Clement, 1998	• Mothers at the Virginia Correctional Center for Women • Treatment N=20 • Control N=20	• Mothers Inside Loving Kids (MILK) program	• CBT (deduced)	• Evaluate the effects of a parenting training program on parenting skills
Mosher & Phillips, 2006	• Women from the Washington State DOC • Treatment N=279 • Control N=279	• New Horizons Program: A holistic residential TC for substance abuse	• CBT	• Examine the effects of participation on reconviction
Pomeroy et al., 1998	• Women in a jail in Orange County, FL • Treatment N=13 • Comparison N=9	• Psychoeducational group	• Reality therapy, behavior modification, cognitive theory, and empowerment theory	• Reduce perceived stress, anxiety, depression, and trauma experienced by women inmates with the long-term goal of reducing recidivism
Pomeroy et al., 1999	• HIV/AIDS-infected/affected women in Orange County, FL jail	• Psychoeducational group	• CBT • Task-centered approach	• Alleviate the emotional turmoil associated with caring for people living with HIV/AIDS

Table 2.2 (Continued)

Source	Population	Intervention	Theoretical Orientation	Purpose
	• Treatment group N=87 • Comparison group N=52			
Sacks, 2008	• Women in a Colorado corrections facility • Treatment group N=163 • Control group N=151	• Treatment intervention: TC • Control intervention: Colorado DOC standard treatment known as the Intense Outpatient Program	• Treatment group-Not specified • Control group-CBT	• Examine the effectiveness of a TC on mental health (psychological symptoms and trauma), substance use, criminal behavior, and HIV-risk behavior
Spiropoulos et al., 2005	Women in community diversion: o Treatment N=64 o Comparison N=93 • Female's in prison o Treatment 1 N=51 o Treatment 2 N=54 o Comparison N=54	• "Problem Solving" program (Taymans & Parese, 1998) • "Pathfinders" program (Hanson, 1993)	• Problem Solving-CBT • Pathfinders-CBT with components of relationships and empowerment	• Examine the effectiveness of 2 correctional treatment programs: The "Problem Solving" program by itself, the "Problem Solving" program augmented by the "Pathfinders" program, and utilized a no intervention comparison group

Table 2.2 (Continued)

Source	Population	Intervention	Theoretical Orientation	Purpose
St. Lawrence et al., 1997	• Women from a state's women's facility near a southern city • Total N=90 (specific distribution not noted)	• A group intervention based on Social Cognitive Theory • A group intervention based on Gender and Power Theory	• Theory of gender and power	• Compare a social cognitive theory intervention to a theory of gender and power intervention for effectiveness on HIV risk reduction
Sultan, 1984	• Women in a North Carolina Correctional Center for Women • Total N=61 (specific distribution not noted)	• Psychodidactic Intervention support group • Support-only group	• Psychodidactic theory	• Investigate an intervention program designed to facilitate successful entry of women into prison
Valentine & Smith, 2001	• Women from a federal correctional facility in Florida • Treatment N=56 • Control N=67	• Traumatic Incident Reduction (TIR)	• Empowerment theory (deduced) • Pyscho-dynamic (deduced)	Examine the effectiveness of traumatic incident reduction

Table 2.2 (Continued)

Source	Population	Intervention	Theoretical Orientation	Purpose
Wexler et al., 1990	• Inmates who completed the program, on a wait list for the program, or participating in an alternative drug counseling program • Female treatment N=247 • Female no treatment N=38 • Female alternative treatment N=113	• Stay'n Out TC	• Not specified	• Examine whether prison-based TC treatment can significantly reduce recidivism

DOC=Department of Corrections; TC=Therapeutic Community

Table 2.3

Search Results (B)

Source	Study Design	Variable(s) Examined	Outcome(s)
Burdon et al., 2004	• Single group design	• Criminogenic needs and factors, retreatment/preincarceration socio-demographics, participation in aftercare, type of aftercare program, 12-month return to custody, lifetime years of incarceration, substance abuse/dependence related DSM-IV diagnoses, area (urban, suburban, rural) paroled to, motivation for treatment	• Increased time spent in prison-based treatment were significantly more likely to participate in aftercare and significantly less likely to be returned to custody within 12-months • Increased time spent in aftercare predicted decreased 12-month return to custody • County of parole did not predict participation in aftercare
Calabrese & Hawkins, 1988	Study 1: • Single subject design (multiple baseline across behaviors)	Study 1: <u>Subject 1:</u> • Discourteous behaviors, seeking attention of work supervisor, seeking attention of others <u>Subject 2:</u> • Flirtatious behavior, non-work related interaction	Study 1: • Individualized job-related training can produce functionally valid changes
	Study 2: • Same as study 1	Study 2: • Off task, talking, disruption	• An intervention aimed at inappropriate classroom behaviors can be effective in a prison setting
Cropsey et al., 2008	• RCT with a 6-month waitlist control group	• Abstinence vs. Smoking	• The combined behavioral and pharmacological intervention was effective at promoting smoking cessation

Table 2.3 (Continued)

Source	Study Design	Variable(s) Examined	Outcome(s)
Farrell, 2000	• Nonequivalent control group design • RCT • Treatment group clients randomly selected • Selection of control group participants was not specified	Independent Variables: • Current status in community, involvement in support/treatment networks, connection with friends/ family, drug usage-self and friends/family, work/education Dependent Variables: • Relapse, recidivism	• Treatment program failed to significantly reduce recidivism or relapse • Treatment group participants were significantly more likely to attend drug treatment in the community • The program failed to reduce either recidivism or relapse significantly for female offenders. • No significant difference between groups in use or development of social support • Being responsible for childcare and having a significant other that does not use drugs decreased likelihood for relapse • Participants in the treatment group were significantly less likely to relapse on alcohol
Ferszt, 2009	• Quasi-experimental • Mixed methods evaluation • Nonequivalent control group design	• Anxiety, depression, self-esteem, and spiritual well-being	• While quantitative data indicated no significant difference between groups overtime qualitative data indicated participants had a more positive view of themselves and increased self-acceptance
Hall et al., 2004	• Nonequivalent control group design • Quasi-experimental	• Crime or recidivism, drug use, employment	• Treatment group had significantly fewer arrests and convictions but significance was not achieved for re-incarcerations • The greater number of lifetime arrests had an increased risk on re-incarcerations

Table 2.3 (Continued)

Source	Study Design	Variable(s) Examined	Outcome(s)
			• Treatment group participants engaged in significantly lower levels of drug use • Age predicted drug use (younger subjects more likely to engage in drug use) and heroin users were more likely to return to use than alcohol or methamphetamine users • Days of post-release residential treatment and education were predictors of employment
Johnson et al., 1974	• Quasi-experimental design: Incidental sample • Secondary data analysis	Independent Variable • G.E.D. earned through the academic program provided by the NCCCW Dependent Variable • Recidivism	• Recidivism rate was slightly higher for the control group. However, difference did not reach statistical significance. • 80% of women who completed their GED while they were incarcerated did not recidivate
Kubiak, 2004	• Experimental exploratory design	Independent Variable • PTSD Dependent Variables • Treatment adherence, drug relapse, and criminal recidivism	• Women with substance abuse disorders and PTSD were significantly more likely to relapse than women with substance abuse disorders only • PTSD diagnosis accounted for 22% of the variance in relapse • Recidivism did not significantly differ by PTSD diagnosis
Kubiak et al., 2004	• Pre-experimental • One group pre-test/post-test design	• Life skills related to community living, employment-seeking skills, program completion status, mental health	• Approximately one third of the women who entered did not attain completion goals • Over the course of the program, efficacy in employment-seeking behaviors and mastery

Table 2.3 (Continued)

Source	Study Design	Variable(s) Examined	Outcome(s)
			improved significantly, and depression symptoms declined
Moore & Clement, 1998	• Quasi-experimental with comparison groups • Nonequivalent control group design	• Self-esteem, parenting and child rearing attitudes, knowledge of specific behavioral management techniques	• Using Wilcoxen nonparametric statistics, improvement in parenting techniques reached statistical significance. • No other differences reached statistical significance between groups
Mosher & Phillips, 2006	• Nonequivalent control group design	Independent Variable • Participation in the New Horizons Program Dependent Variable • Reconviction	• Women in the treatment group were less likely to be reconvicted of a crime, net of other demographic variables, than were women from the control group
Pomeroy et al., 1998	• Nonequivalent control group design	• Stress, anxiety, depression, trauma symptoms	• The intervention had moderate to strong effects in reducing the depression, anxiety, stress, and trauma. Strongest effects were on reducing the depression and anxiety
Pomeroy et al., 1999	• Quasi-experimental pre/posttest design	• Anxiety, depression, trauma symptoms	• The group had a meaningful impact in reducing the depression, anxiety, and trauma symptoms
Sacks, 2008	• Experimental, prospective, longitudinal, repeated measures design	• Mental health (psychological symptoms and trauma), substance use, criminal behavior, and HIV-risk behavior	• Outcomes at 6-months showed significant improvements for both groups on all variables. • Treatment group showed significantly more improvement on mental health, trauma exposure, criminal behavior, and HIV risk behaviors but not substance abuse

Table 2.3 (Continued)

Source	Study Design	Variable(s) Examined	Outcome(s)
Spiropoulos et al., 2005	• Community diversion: Nonequivalent control group design • Women's prison: Experimental group design	• Participant program evaluation • Depression • Correctional adjustment	• The Problem Solving program significantly reduced reported misconduct depression scores • In the women's prison group, the Pathfinders program significantly reduced depression scores over a longer sustained period of time • The addition of the Pathfinders program to the Problem Solving program did not significantly affect any other variables
St. Lawrence et al., 1997	• Experimental group design: Alternative treatment groups with random assignment	• Self-efficacy, self-esteem, attitude toward prevention, AIDS knowledge, communication skills, condom application skills, perceived vulnerability to HIV, commitment to prevention	• Did not find significant differences in skills, knowledge, or attitudinal changes between the two groups • The social cognitive theory intervention showed greater improvement in condom application skills, and the theory of gender and power group showed greater commitment to change • All other variables changes were equivalent over time for the two intervention conditions
Sultan, 1984	• Experimental design with a treatment group, support only group, and no treatment group	• Depressive symptoms, anxiety, prison adjustment (social/emotional factors), prison adjustment (somatic)	• Subjects in the 2 experimental groups reported a significant decrease in psychosomatic complaints • There were no significant differences between the 2 treatment groups at post-test

Table 2.3 (Continued)

Source	Study Design	Variable(s) Examined	Outcome(s)
Valentine & Smith, 2001	• Experimental design with a pretest-posttest control condition and a 3-month follow-up	• Depression, anxiety, PTSD symptoms, self-efficacy	• TIR was effective at alleviating PTSD, depression, anxiety, and low expectancy of success • The control group's scores remained stable across all three testing periods, whereas the treatment condition's scores decreased steadily
Wexler et al., 1990	• Nonequivalent control group design with 2 control groups: o No treatment group o Alternative treatment group	• Arrests, time until arrests, parole discharge/revocation	• The treatment group was significantly more effective at reducing arrests in comparison to the alternative treatment group but not the no treatment group • The treatment group had a significantly higher percentage of positive discharge from parole than the no treatment group but not the alternative treatment group • No relationship was found between study group and time until arrest

Table 2.4

Study Quality Scoring

	0	1	2	3	4
Group Assignment	Violated randomization, nonequivalent	Tested for pre-treatment equivalence	Matched group or case control	True randomization	
Control Group	Not mentioned or no comparison/ control group	Waitlist	Treatment as usual - with an explicit program	Control group	Control group and a third comparison group
Sample size	Not mentioned	Less than twenty participants	21 to thirty participants	31 or more participants	
Treatment Standardized	Not mentioned	No specific training	Manual used or specific training (credit given if mention of a specific curriculum)		
Fidelity	No mention of fidelity or supervision	Assessed: Moderate fidelity	Assessed: High Fidelity or Supervision		
Dose: Frequency of sessions/ contacts indicated:	Not mentioned	less than three	between four and seven sessions	eight or more sessions	
Drop Outs	No mention	Enumerated or discussed or compared			
Indicators of population demographics	Reported two or less	Reported three or more			

Some studies specified other theoretical orientations. For example, Farrell (2000) utilized social disorganization theory to examine whether social support would impact drug use and criminal activity recidivism while Sultan (1984) utilized psychodidactic theory to examine the effectiveness of an intervention aimed at easing the transition to incarceration.

Some researchers have argued that empowerment based interventions are more appropriate for the female populations (van Wormer, 2010). Two studies utilized empowerment theory in their intervention development. In one study, the authors did not specify this theory but we were able to infer it from the description. Pomeroy, Kiam, and Abel (1998) employed a combination of reality therapy, Lazarus' model of behavior modification, cognitive theory, and empowerment theory and examined whether psycho-educational groups would reduce certain mental health symptoms and ultimately recidivism with female inmates. St. Lawrence et al. (1997) compared an intervention grounded in social cognitive theory with an intervention grounded in theory of gender and power for effectiveness on HIV risk reduction.

Spiropoulos et al. (2005) specified the use CBT with an additional component focusing on relationships and empowerment with the *Pathfinders* program and CBT only with the *Problem Solving* Program. However, they do state that the *Pathfinders* program was not designed for women nor was it developed as a gender-responsive program.

Valentine and Smith (2001) use an intervention called Traumatic Incident Reduction (TIR). The authors describe this as a "client-respectful technique… wherein the client's perception of the traumatic incident takes precedent over any other perception of the incident" (pp. 40-41). With the therapist providing structure, this approach gives

the client the authority, or power, to client and therefore we considered it one that utilizes empowerment theory.

Researchers used a variety of theoretical approaches in the creation and implementation of interventions with this population. Most studies described some success in the outcomes of their research regardless of whether the programs were designed according to the principles of gender-responsive programming (Bloom, 1999).

Study Quality

Table 2.5 summarizes the overall study quality. The highest quality score that a study could receive was a 19. Scores ranged from 5-18 with a mean score of 11.32 or 60% of possible points. The top two studies received at least 84% of the possible points with the next highest only receiving 74%. Spiropoulos et al. (2005) had the highest score of quality at 18 points followed by St. Lawrence et al. (1997) at 16 points.

Spiropoulos et al. (2005): Pathfinders and Problem Solving

Spiropoulos et al. examined the effectiveness of two correctional treatment programs, the *Problem Solving* program, a program utilizing cognitive skills training to address impulsivity, and the *Problem Solving* program augmented by the *Pathfinders* program, which addresses issues such as self-image, trust, communication, relationships and empowerment. The aim of this study was to examine whether adding the additional element of the *Pathfinders* program would be more effective in changing criminal thinking patterns.

One of the strong quality components of this study was their true randomization and utilization of a control group and a third comparison group to strengthen the design. In addition, they evaluated groups for equality based on demographics and criminal

Table 2.5

Study Quality Results

Source	Group Assignment	Control Group	Sample Size	Treatment Standardized	Fidelity	Dose Frequency	Drop outs	Demographics	Total
Burdon et al., 2004	0	0	3	0	0	0	1	1	5
Calabrese & Hawkins, 1988	0	0	1	0	1	3	0	0	5
Cropsey et al., 2008	3	3	3	0	0	3	1	1	14
Farrell, 2000	3	3	3	0	0	3	0	1	13
Ferszt, 2009	1	1	2	2	0	3	0	1	10
Hall et al., 2004	2	2	3	2	0	3	1	1	14
Johnson et al., 1974	2	3	3	0	0	0	0	1	9
Kubiak, 2004	0	0	3	0	0	3	0	1	7
Kubiak et al., 2004	0	0	2	0	0	3	1	1	7
Moore & Clement, 1998	1	1	3	2	0	3	0	1	11
Mosher & Phillips, 2006	2	3	3	0	1	3	1	1	14
Pomeroy et al., 1998	1	1	1	2	0	3	0	1	9
Pomeroy at al., 1999	1	1	3	2	2	3	0	1	13
Sacks, 2008	3	3	3	0	0	3	0	1	13
Spiropoulos et al., 2005	3	4	3	2	1	3	1	1	18
St. Lawrence et al., 1997	3	3	3	2	2	2	0	1	16
Sultan, 1984	3	4	3	0	0	0	0	1	11
Valentine & Smith, 2001	3	3	3	2	0	2	0	1	14
Wexler et al., 1990	1	4	3	0	0	3	0	1	12

history and reported they were statistically similar. They also received the maximum points for sample size stating that the women's prison participants started with a total number for all three groups of 159 and finished with 87. They thoroughly addressed attrition by identifying the reasons for incomplete data collection and statistically analyzing and differences between dropouts and completers, and therefore received the point for accounting for dropouts.

While slightly ambiguously reported, this article did receive full points for treatment standardization. They did not mention whether the *Problem Solving* program used of a manual, specific training or curriculum. However, the authors described it as a program and identified it as a component of a widely used manualized program *Thinking for a Change*. In addition, the authors provided specific details of what was covered. The *Pathfinders* program description included the mention of a specific curriculum, exercises, surveys, games, and activities. Therefore, we assumed that these programs were manual and/or curriculum based.

This study lost their only point for fidelity. The authors did not mention the use of supervision for facilitators to assure treatment fidelity. However, they did use an evaluation that addressed many facets of the program including feedback on the facilitator's adherence to the program design.

St. Lawrence et al. (1997): HIV Risk Reduction for Incarcerated Women

These authors compared a social cognitive theory intervention that provided specific skills training to a theory of gender and power intervention that used unstructured discussion and open-ended questions about gender and power issues related

to HIV. Their goal was to assess which approach was most effective at reducing HIV risk.

Similar to Spiropoulos et al., these researchers utilized random assignment, strengthening the quality of this study. However, they used a comparison group only with no control group. The authors statistically evaluated their groups for equality and found no between group differences.

This study reported a sample size of 90. However, the authors do not specify whether this was a starting number or the number that completed treatment. Unfortunately, there was no mention of attrition, weakening the overall study quality.

This article also did not specifically mention the use of a manual. However, they described both interventions in detail. The article notes, "All intervention sessions were audiotaped and assessed for adherence to the interventions' protocol" (St. Lawrence et al., p. 505). This statement indicates that there were specific guidelines for each intervention. Because of this statement, we gave this study full points for treatment fidelity.

Of the 19 studies from this review, most study designs were quasi-experimental. Only five utilized randomization (Farrell, 2000; Spiropoulos et al., 2005; St. Lawrence et al., 1997; Sultan, 1984; Valentine & Smith, 2001). Farrell (2000) randomly selected participants from a specific population for their treatment group. However, they made no mention of the selection process for the control group. The other four studies described random assignment to both or all research groups. This missing component in the study design of the remaining articles weakens their conclusions about the effectiveness of the intervention.

Three areas where most of the studies consistently lost points were fidelity, dropouts, and treatment standardization. Only 5 of the 19 studies received points for fidelity with only 2 of those receiving full points. The strongest areas were sample size and demographics reported. All studies receiving some points for sample size and all except four of the studies received full points. Only one study did not receive points for demographics.

Discussion

Most of the studies targeted substance abuse and utilized a cognitive behavioral theoretical orientation. Further, all reported successful treatment outcomes. This begs the question of whether the effectiveness of the cognitive behavioral model with women is as unsupported by research as some scholars assert (Bloom, 1999; Chesney-Lind, 2000). It is important to note that each study operationalized and measured success differently. Their reported success does not mean that gender-responsive programs would not be equally or even more beneficial. What it does mean is that a variety of approaches may be necessary depending on the specific needs of the inmate and the therapeutic focus.

High quality studies evaluating the effectiveness of therapeutic interventions with the female incarcerated populations were sparse. One possible reason for this is that accessing prisoners for research purposes can be a cumbersome process. Research ethics review boards now consider prisoners a vulnerable population in terms of research ethics due to a history of exploitation in the name of research. Studies with incarcerated populations require researchers to navigate additional IRB restrictions as well as correctional institutional restrictions (U.S. Department of Health & Human Services, 2003). Further limits are often in place for security concerns that accompany operating

within the walls of a correctional facility. While navigating the IRB review process does not necessarily ensure that quality research is conducted, the additional requirements and cumbersome process may dissuade researchers from attempting to access this population leaving programs unevaluated by outside sources.

Policy Implications and Directions for Future Research

Even after navigating the review board systems, many of these studies still did not produce high quality research. It is essential that prison administrators base their program development considerations on quality research findings. Often, when an intervention in one setting appears successful, correctional facilities adopt the practice, thinking it will fit in their system (Henderson, Young, Farrell, & Taxman, 2009). Fortunately, we are seeing a shift in this practice as evidence-based treatment becomes more common within the correctional setting (Henderson et al., 2009).

Quality studies often require resources that are not always readily available and result in hastily planned and executed research. These types of studies can generate findings based on faulty assumptions and ultimately reinforce ineffective responses to problems. High quality research can help prevent this wasted time, money and energy by ensuring that interventions used are relevant in design, focus, and implementation.

One way to address the deficit of quality research in this field is to conduct more randomized control trials. Random assignment is a technique used in research that allows for the assumption of group equality. If researchers randomly assign two groups, the assumption is that between group differences are due to the treatment effect and not individual group characteristics. It addresses most of the basic assumptions of internal

validity. Therefore, without this component, we cannot exclude outside variables from the list of reasons for the treatment effect.

Clinical Implications

These findings can guide future therapy practice with this population. Practitioners have a responsibility to understand the importance of quality research and to learn how to be effective consumers of this research. These findings provide guidance for program components that practitioners should look for. Before implementing an intervention with female inmates, practitioners should conduct a needs assessment identifying the distinctive concerns of the group they are targeting. Next, they should consider the theoretical orientation of the intervention in order to ensure that they address needs properly. For example, if skill development from a CBT orientation is the focus of the intervention, this approach may only be effective if an additional component is included from an empowerment perspective addressing self-efficacy. We teach a client various skills, but if she does not believe she is capable of utilizing these skills, then teaching them becomes less practical.

Study Limitations

There are limitations to this systematic review. First, we included only studies accessible through electronic database searches. Even though a great deal of research is accessible through this search approach, we likely missed some quality studies that were not available through the electronic search or through the specific databases we used.

Next, we assessed study quality using seven primary factors that we deemed relevant. We identified components of study rigor and chose those that we believed

indicated quality in research. There are components that we did not specifically address. For example, there are elements of internal and external validity that we did not include.

These limitations do not take away from the importance of the findings. However, future research should include a more comprehensive review. This may include unpublished research, governmental studies, and should assess quality based on the full spectrum of valid constituents.

With the growing rate of incarcerated females comes the need for empirically validated interventions addressing their specific and unique needs. Their higher rates of substance abuse and histories of physical and/or sexual abuse warrant the exploration of possible gendered approaches. Generating high quality research is an essential component to ensuring that we appropriately address their distinctive needs and that corrections does not implement ineffective programs based on faulty research findings.

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CHAPTER 3

ANIMAL ASSISTED THERAPY WITH FEMALE INMATES WITH MENTAL ILLNESS: A CASE EXAMPLE FROM A PILOT PROGRAM

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Animal-Assisted Therapy with Female Inmates with Mental Illness: A Case Example from a Pilot Program

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Female offenders' mental health needs have consistently been shown to exceed those of male offenders. Incarcerated women report higher rates of violent victimization, major depression, post- traumatic stress disorder, mood disorders, substance use disorders, and personality disorders. For years, researchers have examined the human-animal relationship through the lens of attachment theory in order to understand the symbiosis that exists. The following article describes a pilot animal-assisted therapy program implemented at Utah State Prison for female inmates struggling with mental illness. Following this description, a clinical case example is used to illustrate the impact of this program on a particular group member.

KEYWORDS AAT, animal-assisted therapy, female inmates, group intervention

MENTAL HEALTH IN THE INMATE POPULATION

In the wake of deinstitutionalization, our nation's prison system has replaced state hospitals as the primary purveyors of mental health services, by default becoming the new mental health institutions (American Psychiatric Association, 2004). According to the U.S. Department of Justice, at midyear 2005 more than half of all prison and jail inmates had a mental health problem, with state prisoners most likely to report a recent history of a mental health problem (James & Glaze, 2006). This criminalization of mental illness, as this shift is often referred to (Munetz, Grande, & Chambers, 2001), forces prison administration to consider the special needs of this growing population and how best to address these needs while maintaining adequate security (Magaletta, 2009).

Inmates with mental illness struggle more than their counterparts with adjusting to prison life and are more susceptible to becoming caught in the ''revolving door'' of the corrections system (MacKain & Messer, 2004). The lack of community services, difficulties in accessing services, and previous contact with the criminal justice system, are commonly cited as causes for this revolving door (American Psychiatric Association, 2004).

INCARCERATED FEMALES AND THEIR MENTAL HEALTH ISSUES

In 2006, the growth of the female inmate population was even greater than that of the male population. While the male growth rate was 2.7%, the number of women in

prison saw an increase of 4.5%. This growth rate for female inmates exceeded that of the average annual growth rate of 2.9% from 2000 through 2005 (Sabol, Couture, & Harrision, 2007). By the end of 2006, approximately one out of every eight adults on parole was a woman (Glaze & Bonczar, 2007).

Female offenders' mental health needs have consistently been shown to exceed those of men (P. H. Ross & Lawrence, 2009). An estimated 73% of females in state prisons, compared to 55% of male inmates, have a mental health problem (James & Glaze, 2006). Incarcerated women report higher rates of violent victimization, major depression, and posttraumatic stress disorder (PTSD; Broner, Kopelovich, Mayrl, & Bernstein, 2009; Browne, Miller, & Maguin, 1999; Burnette & Newman, 2005; Warren et al., 2002). In addition, this population demonstrates higher rates of mood disorders, substance use disorders, and personality disorders, most notably borderline personality disorder (Chapman, Specht, & Cellucci, 2005; Jordan, Schlenger, Fairbank, & Caddell, 1996; Nee & Farman, 2005). Key features to borderline personality disorder are interpersonal hostility, recurrent suicidal behaviors or self-harm, impulsivity, severe reactivity, highly unstable interpersonal relationships, and persistently unstable self-image (American Psychiatric Association, 2000). Individuals with borderline personality disorder, especially those engaging in suicidal gestures and self-harm, pose a particular concern for corrections staff. However, results of some studies indicate that interventions directed at helping inmates develop active, problem focused coping strategies may result in less frequent suicidal behavior among female inmates (Chapman et al., 2005).

FEMALE INMATES IN UTAH

Recognizing the need to understand the special circumstances of the female inmate population, in 2004 the Utah Commission on Criminal and Juvenile Justice collected data on the characteristics of the female prison population in Utah (Utah Commission on Criminal and Juvenile Justice, 2004). They found that nearly half of the survey participants had not completed high school requirements (44.7%) and 54% reported a total household income of under $10,000 prior to being incarcerated. Most (62.5%) of the participants were there for drug related crimes and 77.6% of them reported that their crimes were committed while under the influence of drugs or alcohol. Half of all respondents (50.6%) reported that they committed their crime in order to acquire money for drugs.

Particularly concerning were the mental health issues for this population. Of the participants, 28.2% reported current mental health treatment, and 45.4% reported having had treatment at some point in the past while incarcerated. Over half of respondents (56.0%) reported that they had received some mental health treatment in the past while not incarcerated. Most of the women reported that they had previously been in a residential treatment program and attended outpatient treatment, while 15.2% reported prior mental health hospitalization (Utah Commission on Criminal and Juvenile Justice, 2004).

When looking at their reported lifetime prevalence of abuse, it is not surprising that mental health is a concern for this population. 85.8% of the women incarcerated in

Utah reported having experienced physical or sexual assault at some point during their lifetime. 69.3% reported a sexual assault or rape and 79.1% reported physical assault at some point in their lives.

ATTACHMENT THEORY

Attachment theory offers a framework for understanding normal and pathological relationship formation through learning how early relationships affect later psychological functioning (Shorey & Snyder, 2006). Internal representations developed in childhood effect how an individual interprets her ability to cope and how she utilizes relationships throughout her life. While adaptive during infancy, if unchanged, the alternative strategies developed by the insecurely attached child become maladaptive during adolescents and adulthood.

In cases where the child was subjected to abuse or neglect, or parented by a psychologically disturbed parent, these strategies, if unchanged, can result in the development of personality disorders or other forms of psycho- pathology (Fonagy, 2000). In fact, some researchers view personality disorders as disorders of attachment (Shaver & Clark, 1994).

Research has found that a chaotic childhood, including neglect and/or physical or sexual abuse is an important etiological factor for the development of borderline personality disorder (Zanarini, Williams, Lewis, & Reich, 1997). The vast majoring of female inmates have experienced trauma such as childhood physical and/or sexual abuse (Bloom & Covington, 2009). Research looking at the lifetime prevalence of traumatic experiences of female offenders has found their trauma exposure to be significantly higher than general population women or incarcerated men (McClellan, Farabee, & Crouch, 1997). Because of these chaotic and often traumatic childhoods, it is likely that these women demonstrate some form of disrupted attachment behaviors.

Some studies have examined the nature of attachment behaviors in offenders with mental illness. Overall, these studies have found that secure attachment styles in this population are extremely underrepresented com- pared to general population individuals (Frodi, Dernevik, Sepa, Philipson, & Bragesjö, 2001; T. Ross & Pfäfflin, 2007; van Ijzendoorn et al., 1997). Further, while the relationship between personality disorders and attachment is often complicated by many variables, the more diagnosable signs of a personality disorder that are present the more insecurely attached criminal offenders tend to be (van Ijzendoorn et al., 1997).

Attachment and Animals

For years, researchers have been examining the human-animal relationship in order to understand the symbiosis that exists (Crawford, Worsham, & Swinehart, 2006; Endenburg, 1995; Woodward & Bauer, 2007). Some studies have found a great deal of support for the strength of the affectional bond between pet and owner (Palestrini, Previde, Spiezio, & Verga, 2005; Prato-Previde, Custance, Spiezio, & Sabatini, 2003; Topál, Miklósi, Csányi, & Dóka, 1998).

Using traditional attachment measures to study the human-animal bond between pets and pet owners, Prato-Previde, Custance, Spiezio, and Sabatini (2003) replicated a

study by Topál et al. (1998) in which they used the Strange Situation test to measure the attachment relationship between dog owners and their dogs. Developed by Ainsworth and colleagues, the Strange Situation test was developed in order to understand and classify infant attachment based on environmental exploration behaviors and infant responses to short-term maternal separation (Ainsworth & Bell, 1970). They found some evidence of dogs using owners as a secure base for exploration and play, although not as strong as with human infant and caregivers. In addition, they found that once dogs became aware that their owners had left the room, they displayed distress and protest and engaged in behaviors that indicated they were actively searching for their missing owners. Further, similar to securely attached infants, the reunion of the owner and dog elicited proximity and contact-seeking behaviors. Only the dogs that had experienced abandonment at some point in their lives displayed insecure attachment behaviors such as avoidance or withdrawal in response to this reunion.

In addition to dogs displaying attachment behaviors similar to infants, the attachment relationship between human and animal also serves a similar purpose for humans. Headey (1999) reported that most of the respondents to his study described an emotional security derived from their relationship animal, describing their pets as comforting during times of distress. Further, a number of studies show that companion animals have a positive influence on general physical health and mental health (Friedmann & Thomas, 1995; Headey, 1999; Siegel, Angulo, Detels, Wesch, & Mullen, 1999) and have been shown to decrease stress and anxiety in some populations (Fritz, Farver, Hart, & Kass, 1996).

ANIMAL-ASSISTED THERAPY

There are several ways that professionals use animals for therapeutic purposes. The community service model, where animals are rehabilitated in order to be adopted out to the community, and service animal socialization programs, where animals are trained to assist individuals with disabilities, are the most common. However, another form, animal-assisted therapy (AAT), is a goal-directed intervention in which an animal is a primary element of the treatment process (Delta Society, 2009a). It is an interaction between patients and a trained animal and human handler, with a therapeutic objective (Barker & Dawson, 1998).

AAT is not a style of therapy. Rather, this approach uses an animal as a tool while operating from the therapist's principle foundational method. For example, a therapist may utilize cognitive-behavioral techniques to facilitate change in a client through interactions with an animal (Delta Society, 2009a).

In addition to AAT, therapy animals help individuals through animal- assisted activities (AAA). AAAs provide social, educational, and recreational benefits for people during interactions. AAAs do not need to be overseen by a therapist and they do not work toward particular therapeutic goals (Barker & Dawson, 1998).

It is important to note that therapy animals are not service animals. A handler utilizes a therapy animal in AAAs or AAT with people who do not necessarily have disabilities. According to the Americans with Disabilities Act, a service animal is trained

specifically and individually to assist an individual with disabilities (Americans with Disabilities Act, 1996). Since therapy animals operate in various settings with a wide array of individuals that are not disabled, they do not meet the classification of service animals.

RESEARCH ON AAT AND AAA WITH INDIVIDUALS WITH MENTAL ILLNESS

There are several studies looking at the effects of AAT and AAA on individuals with mental illness (Barak, Savorai, Mavashev, & Beni, 2001; Barker & Dawson, 1998; Prothmann, Bienert, & Ettrich, 2006). Prothmann et al. (2006) investigated possible influences of AAT on the state of mind of children and adolescents who had undergone inpatient psychiatric treatment. Following five individual therapeutic sessions with a therapy dog, compared to the control group, the treatment group demonstrated increased alertness, attention, openness and desire for social contact, perception of healthy and vital factors, and participants appeared psychologically more well balanced. In addition, these effects were stronger the worse the individual felt before the contact with the dog.

In a study examining whether a session of AAT reduced the anxiety in adult patients at a psychiatric hospital and whether any reductions were associated with patients' diagnoses, Barker and Dawson (1998) compared the effects of a single AAT session with those of a single therapeutic recreation session. Results indicated significant reductions in anxiety after the AAT session for patients with diagnoses of psychotic disorders, mood disorders, and other disorders, whereas after the therapeutic recreation sessions only patients with mood disorders showed a significant decrease in anxiety. In addition, the reduction in anxiety following AAT for patients with psychotic disorders was twice as great as that of the recreation session.

In another study, Barak et al. (2001) evaluated whether an AAT program would encouraged mobility, interpersonal contact, communication and rein- forced activities of daily living with elderly patients with schizophrenia in a psychogeriatric ward. Results indicated that AAT could have a significantly positive effect on this population. They found significant improvement on all aspects of the measure used. Most notable was the effect on social functioning where improvements were already evident at six months.

These studies show that AAT can have a positive effect on the psychological well-being of individuals with mental illness. In addition, this intervention can strengthen social skills, reduce anxiety and encourage interpersonal growth.

THE USE OF ANIMALS IN CORRECTIONS FACILITIES

Corrections facilities have been using animals as rehabilitative or therapeutic tools for many years (Fournier, Geller, & Fortney, 2007; Furst, 2006). In an attempt to understand the extent of the use of prison-based animal programs (PAPs) in the United States, Furst (2006) did a national survey of state correctional systems. At the time of this study, 36 states were using PAPs. The community service model was the most commonly reported

program, and the service animal socialization programs were the next most commonly reported program. The most frequently mentioned benefit was the sense of responsibility developed from caring for the animals. In addition, most respondents reported no negative elements of the program. Those that did, mentioned the negative aspect was staff resistance (Furst, 2006).

There have been few studies done looking at the efficacy of these programs (Furst, 2006). However, in one study, Fournier et al. (2007) evaluated the effects of a human-animal interaction (HAI) program on prison inmates. Results of this study indicated that, compared to the control group, participation in the HAI program produced psychosocial changes in the inmates. This was evident by increased treatment progress, decreased institutional infractions, and improvement in social sensitivity.

The number of prisons that are currently using animal programs seems to indicate a general acceptance of this model of rehabilitation. However, this author has been unable to find any publications attesting to the use of AAT in a group therapy format with the inmate population. In addition, there have been no studies to date evaluating the potential effectiveness of this type of intervention with the incarcerated population struggling with mental illness.

A PILOT AAT PROGRAM FOR FEMALE INMATES WITH MENTAL ILLNESS

The following sections describe a pilot AAT program developed for female inmates with mental illness implemented at Utah State Prison in spring 2008. Following this description will be a clinical case example used to illustrate the impact of this program on a particular group member. Important to note is that this case example is not intended to be a case study. Rather, the case example provides some clinical insight and is intended to generate direction for future research.

An application was submitted to the Institutional Review Board (IRB) requesting approval for this manuscript. However, the IRB decided that oversight was not necessary, as this project did not meet the definition of human subject's research.

Background

Treatment team discussions were an essential part of the process of gauging group impact. Each week, all mental health staff working directly with the residents of the female inpatient mental health program engaged in in-depth discussion about current functioning and possible mental health needs. These discussions included social workers, whose experience ranged from intern to 20 years of working with this population, a psychiatric advanced practice registered nurse, and caseworkers. The wide range of expertise and professional input provided a rich perspective on possible group effects. Direct observations combined with reports from these various mental health workers whom interacted with the participant on a daily basis provided the information that was used to construct the clinical case example.

It is important to note my role as the author and to explain my access to the group, the population, and the clinical information used in this case example. As a mental health therapist working directly with the female inpatient mental health unit, I had firsthand

knowledge of the group members and their therapeutic progress. I had access to group members on a daily basis, had opportunity to observe them in their daily environment, conducted individual and group therapy with several of the group members, had access to the therapeutic content of their treatment, and I was part of weekly treatment team discussions. In addition, I was the facilitator of the AAT group being described. Therefore, my knowledge of the group experiences, group content, and impact on group members was not merely observation but involved direct interaction with all group members.

Group Participants

The treatment team selected participants based on severity of the inmate's social and coping skills deficits. Their therapist asked the individuals selected if they would like to participate in the group, told them about the group content, and informed them that there would be a dog present during group sessions. All five inmates offered the opportunity to participate accepted. No group members were required to attend. Further, the group facilitator informed participants that if they opted not to participate in that group, that they would likely have an opportunity to participate in another group in the future.

Group members were five women who, at the time, were residents in the mental health inpatient program. Ages ranged from 26 to 42. Inmate diagnoses included schizophrenia, schizoaffective disorder, bipolar disorder, and major depression. All women had co-morbid substance abuse or dependence diagnoses. Time in the inpatient program ranged from two months to one-and-a-half years.

Others present during groups were the group facilitator, the animal handler, and the dog. The animal handler had no prior mental health experience. Her presence in the group provided inmates with knowledge of the dog's history, boundaries, likes, dislikes, and daily life. This information was essential to the group process. It provided inmates with the data necessary to understand group topics in the context of the dog.

The dog was a therapy animal certified by the Delta Society. The Delta Society is an international nonprofit organization. It was the first of its kind to offer comprehensive training and certification of animals and handlers in AAT and AAA (Delta Society, 2009a). The Delta Society certified the dog in June 2007. Previously, in July 2006, Therapy Dogs Incorporated had provided his certification. The reason for the change in certification organizations was that the dog's owner moved to a new state.

PROGRAM DESCRIPTION

In March 2008, the mental health department at the Utah State Prison in Draper, UT implemented an AAT pilot program. The program consisted of eight 1-hour weekly or twice weekly sessions. The group approach was a combination of psycho-education and therapeutic intervention. This group implemented the use of a dog in order to facilitate the educational and therapeutic goals. Group sessions focused on the development of social skills, coping skills, and self-awareness. Group topics included, boundaries, personal safety issue, developing trust, being trustworthy, responsibility, under- standing emotions, expressing emotions in a healthy manner, and learning new behaviors.

Each week, group members would sit in a circle on the floor and the dog would remain in the center of the circle. Human-animal interaction was based on group member or animal initiative. As group proceeded, the dog would visit members offering each individual his affection. If a group member wanted to interact with the dog, she would quietly call him to her.

As the group discussed the weekly topics, the group facilitator would use the dog as a model. For example, during a discussion on boundaries, the group facilitator would encourage group members to discuss what the dog's boundaries are, how people are able to recognize them, and how the dog might communicate those boundaries in different situations. The facilitator then tied this to recognizing the boundaries of other people. During the week that addressed learning new behaviors, the inmates attempted to teach the dog a new trick. The facilitator then encouraged discussion about how that felt for the inmate and how the inmate thinks it may have felt for the dog. The purpose was to recognize that learning new behaviors is often frustrating, confusing, and difficult. The facilitator then tied this to learning new coping skills.

Program Conclusion

This AAT intervention was well received by group members, the mental health workers, and the Department of Corrections administration. Anecdotally, the group's facilitator, participants, and their clinicians reported positive outcomes. The group facilitator and the inmate's individual therapists informally asked the participants what their opinions were of the group experience. The group members reported a large decrease in anxiety and depressive symptoms. One participant reported that while she really enjoyed the group, she did not feel that it changed her much. She was the only individual that reported this. All others were able to identify a specific area of personal growth. However, some were more extreme than others.

Reports of direct observations by the mental health professionals working directly with these individuals seemed to favor decreased social isolation and increased prosocial behaviors. Individual therapist's reports indicated that these inmates seemed more open to addressing therapeutic issues, approached therapy with a more optimistic attitude, and articulated an increase in self-awareness. Nothing negative was reported by inmates or therapists, nor were any observed by the facilitator.

All group participants showed an increased motivation to attend group. Typically, a 5–10 minute warning would be required prior to group commencement in order for groups to start on time. However, with the AAT group all participants were dressed and ready at least 15 minutes before group. Group members stated that they looked forward to seeing the dog during the AAT group and that the anticipation made them feel excited and happy. In addition, all the group members participated eagerly in most sessions. There were a few sessions where an inmate was quiet, not volunteering responses. However, when called on, even during these times they contributed thoughtfully.

During the last session, when asked what they had learned, all participants were able to recall several of the educational topics and tie those discussions into their own lives. Most demonstrated an increase in self-awareness in one or more of the topic areas.

AAT and Attachment Theory

This intervention is grounded in attachment theory. The basis for having the dog present is to use the relationship that develops between each participant and the dog as a corrective relational experience. The goal is not to change their attachment classification, as attachment classification is developed through patterns of coping in many areas of life and, at times, varies depending on relationships. Changing the overall attachment classification of an individual takes a great deal of time and is not feasible in this case. Rather, the goal of this group experience is to use the dog as a secure base, helping manage distress, and allowing participants to be open and receptive to the therapeutic value of the group experience. The theory is that participants will use the human-animal relationship to challenge their maladaptive coping strategies developed through their negative internal representations of self.

CASE EXAMPLE

Background

Tara grew up a child victim of multiple familial sexual assaults beginning at age four. She reported having a physically abusive relationship with her father and an emotionally abusive relationship with her mother. At age 12, she dropped out of school, began using drugs, and engaged in prostitution to support her drug habit. At that point, she cut ties with her parents and only maintained communication with one uncle, one aunt, and her maternal grandparents.

Her abusive relationship patterns were consistent throughout her life. She described herself as having never been in a relationship that was not abusive. While engaging in prostitution she endured numerous sexual assaults, contributing to her ongoing victimization. Tara lived on and off the streets until age 32 when she moved in with her elderly aunt who was extremely ill. She acted as her aunt's caregiver until 38 when her aunt passed away. She was off drugs during those six years, and was able to complete her high school education by taking night classes. However, shortly after the death of her aunt, she returned to using drugs. She was eventually arrested and charged with possession of methamphetamine with the intent to distribute.

Description of the Presenting Problem

Tara was a 42-year-old inmate incarcerated for drug related charges. At the time the group began, she had been in the inpatient program for six months. She had a primary diagnosis of schizoaffective disorder.

Tara consistently demonstrated poor social and coping skills. She described a history of interpersonal instability. Having never been married, her longest reported relationship was two years. Frequently the victim of domestic violence in relationships, her adaptive coping skills were limited.

Once incarcerated at the Utah Department of Corrections female facility, Tara was placed directly into the mental health inpatient program. This pro- gram houses the department's female inmates who struggle most with severe mental illness. It operates as

a therapeutic community. Generally, inmates will move to the inpatient program from the general prison population after mental health staff have identified them as struggling with a mental illness. However, Tara was identified as having a mental illness during the intake process. Therefore, the mental health treatment team decided to place her directly into the inpatient program following the initial ‘‘receiving and orientation’’ phase of the prison intake process.

While in the inpatient program, Tara had been attending weekly individual therapy sessions, weekly therapeutic group sessions, and weekly psycho-educational group sessions. She completed three 8-week psycho- educational groups, one addressing grief, one addressing coping skills, and the other focusing on basic life skills. She attended most of her required classes and engaged minimally in required activities.

In her psycho-educational groups her participation as negligible. She did not voluntarily contribute but did answer when asked to do so. However, the answers she gave were short and lacked insight or awareness. Her eye contact was sparse, her affect consistently flat, and her interaction with other group members was minimal. Her engagement in therapy groups was very similar. When it came her time to share, she would routinely ‘‘pass,’’ stating that she had nothing to share. She offered no support to other group members but did consistently appear attentive when others were discussing deeply emotional issues.

Tara was guarded and did not actively engage in individual therapy sessions. Treatment progressed slowly. Tara was closed off, refusing to address any therapeutic concerns.

Within the therapeutic community, Tara interacted socially with a select few. While she did not remain fully isolated, she did avoid community meetings, and when forced to attend was silent and withdrawn. She played games with some community members and spent a lot of her time working on a puzzle or reading in her cell.

Intervention

At the onset of the AAT group, her contributions to the therapeutic community began to increase. She slowly started to engage in activities, such as charades, and to sit in the common area with individuals she had not associated with before. She started to participate in card tournaments and began attending community meetings willingly. Corrections officers began to comment to the mental health staff that her affect appeared brighter and that she had been increasingly engaging in dialogue with the officers on duty.

Tara’s social interactions improved noticeably. She reported feeling awkward at first when she started to interact with other community members. However, she kept trying and described that her uncertainty faded with each attempt. She developed an increase in her comfort level of holding boundaries with other and better able to recognize when boundaries are being held with her. She conveyed a developing awareness of her ‘‘victimization’’ patterns resulting from her learning about boundaries. She stated that when she experienced frustration at implementing a learned coping skill she was able to recognize that feeling and realized what was going on for her. She stated that this awareness encouraged her to continue trying where in the past she would have given up.

Tara's individual therapy shifted dramatically after she began engaging in the AAT groups. She began to open up about her past abuse and to discuss issues that were extremely painful. When asked by her therapist if she could articulate the shift in her feelings of safety, she stated that the AAT group helped her to recognize that by not trusting anyone she was hurting herself. She talked about how she had been keeping people out that could help her but was letting people in that were hurting her. She said that learning about safety and boundaries in the AAT group helped her to understand this.

CLINICAL IMPLICATIONS

Research has established that animals provide numerous benefits to many populations (Barker & Dawson, 1998; Barker, Knisely, McCain, & Best, 2005; Conniff, Scarlett, Goodman, & Appel, 2005; Filan & Llewellyn-Jones, 2006; Kawamura, Niiyama, & Niiyama, 2007). Corrections departments have been using animals in various capacities for many years to rehabilitate inmates and have experienced a great deal of success (Fournier et al., 2007; Furst, 2006). However, no studies have reported on the use of AAT in a group format with this population. This article aims to initiate discussion about the effects of AAT on female inmates with mental illness. It provides direction to mental health workers who are looking for innovative forms of group interventions. Inmates are clearly in need of interventions aimed at providing them with skills with dealing their mental health struggles as well as developing healthier coping skills. A service such as the AAT might be another way of providing this population with these skills.

STRENGTHS AND LIMITATIONS

Before drawing any conclusions about this intervention, several limitations should be acknowledged. First, the author did not use any validated assessment tools to measure change. All reports were subject to the interpretation of either the author or the group member's individual therapist. Because of this, the author could not specifically measure change or report whether any change was statistically significant.

Next, during the course of this eight-session pilot program, the Department of Corrections sent out a press release inviting the media to observe this new program. During the fifth session, various members of the media were present and filmed the group process. Following the group, they interviewed some of the participants, asking them about AAT. This event could have influenced the effect of this intervention on these inmates. The excitement surrounding the possibility of being on TV could have increased the positive feelings they associated with the program.

Even though there are various limitations to this case report, observations support the possibility that this intervention may be promising with this population. There is need for further research to measure specific changes and to allow for statistical evaluation of possible improvements. In addition, studies looking at a larger number of female

inmates who have participated in the AAT groups may allow for refinement of curriculum topics as well as to identify the individual characteristics that benefit most from this type of intervention.

DISCUSSION

Prisoners are clearly in need of services that provide them with resources to develop healthier coping skills. In addition, there is a need for research looking specifically at the characteristics of inmates that could benefit from this intervention. Such research could contribute a great deal to the field of therapy with the prison population.

Anecdotally, this pilot program appears to have had a promising effect on the group members. The informal feedback from inmates accompanied by the professional observations of the facilitator and other therapists provides an optimistic outcome from group AAT. Overall, the inmates expressed feeling connected to the dog and more willing to engage in group discussion and activity.

While prisons are increasingly utilizing animals in therapeutic and rehabilitative programs, no studies exist evaluating the effects of AAT in a group format. In fact, there are no reports of therapists using animals in this context with this population. Future research aimed at gathering this type of data could contribute a great deal to the field of rehabilitative services to inmates.

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CHAPTER 4

AN ANIMAL ASSISTED THERAPY INTERVENTION WITH FEMALE INMATES

Abstract

The last few decades have seen a remarkable increase in the presence of women in prison. While incarcerated women do not differ greatly from incarcerated men in terms of demographics, the type of crimes and pathways to crime differ substantially. For many years corrections facilities have used animals as rehabilitative or therapeutic tools. In March 2008, the Utah Department of Corrections implemented a pilot AAT program with incarcerated women housed in a mental health inpatient unit. For this study, we extended the program to female inmates housed in general prison population and an experimental design employed. We found a statistically significant improvement for both groups but no between group differences. We discuss recommendations for future research.

Female Inmate Population

The last few decades has seen a remarkable increase in the presence of women in prisons and jails (Greenfield & Snell, 1999; Snell & Morton, 1994). Once considered the invisible population, women now make up the fastest growing segment of the prison population (Browne et al., 1999; Chesney-Lind, 2000). In 1999 the Bureau of Justice Statistics reported that the per capita number of women involved in corrections had

grown 48% since 1990, compared to their male counterparts who experienced a 27% increase in the per capita number (Greenfield & Snell, 1999).

Incarcerated women do not differ greatly from incarcerated men in terms of basic demographics such as race, ethnic background, and age. However, the type and severity of crimes that women are involved in, as well as their childhood upbringing, differ substantially (Snell & Morton, 1994). Women are more likely to be incarcerated on property or drug offense and have a much lower rate of violent offense than do men (Sabol et al., 2007). Further, more female inmates report being raised in a single parent home and have family members with histories of incarceration and/or drug use (Snell & Morton, 1994).

Female Inmates in Utah

In 2004, the Utah Commission on Criminal and Juvenile Justice conducted a survey in order to ascertain the characteristics of incarcerated women in the state of Utah. Three hundred fifty-eight female inmates, housed at the Utah State Prison or county jails in the state of Utah, completed this survey. They gathered information on demographics, health, substance use, treatment history, family history, children, and history of physical or sexual abuse (Utah Commission on Criminal and Juvenile Justice, 2004).

At the time of this survey, most incarcerated women were between the ages of 26-40 with 39.4% between the ages of 31 and 40. This was somewhat of a racially homogeneous population with 72% identifying as White. However, this is consistent with the overall population of Utah which between 2000-2008 reported more than 80% of the total population as White (University of Utah Bureau of Economic and Business Research, 2008).

Nearly half (44.7%) of these women reported that they had not obtained a high school diploma and over half (54%) reported a total household income of less than $10,000 prior to their current incarceration.

Drug use was a major concern for this population. Overall, most of the women surveyed were involved with drugs with 62.5% reporting being incarcerated for drug related crimes and 77.6% reported being under the influence of drugs or alcohol while committing their crime. The highest percentage of respondents (40-44%) began using drugs, alcohol, and cigarettes between the ages of 12-15 with methamphetamines by far being the drug of choice (48.6%) with cocaine being next (16.5%). Further, 60% identified that at least one of their parents had abused alcohol or drugs.

Most female inmates in Utah were single mothers. More than 70% of these women reported being divorced or single and only 14% reported never having had children. Most women did not have custody of any of their children. However, 43.6% reported having custody of one to three of their children.

Mental health issues were also prevalent with this population. Over half of the respondents reported having utilized mental health services while not incarcerated and 45.4% stated that they had received mental health treatment at some point during incarceration.

A large number of female inmates in Utah reported a history of victimization. Sixty-three percent reported that, at some point, they had been hit, beaten, or attacked with nearly 69% of these occurring 10 or more times and nearly 70% occurring after the age of 18. The majority of respondents reported being targets of a sexual assault. Sixty percent reported having these experiences .prior to age 18 and 43% after age 18. Nearly

44% reported specifically being raped before the age of 18 nearly 42% after the age of 18.

In summary, most of the survey respondents were poorly educated, unmarried, and mothers. Most came from tumultuous backgrounds including parental discord, incarceration, and drug abuse. Most have struggled with mental health issues, have sought treatment at some point and have a history of abusing substance. In addition, sadly, a large majority of these women have been victims of physical and/or sexual abuse.

Interventions Used with Female Inmates

Most studies evaluating therapeutic interventions with incarcerated women focus on substance abuse and most utilized a CBT approach. Some argue that because of their unique characteristics and pathways to crime, empowerment-based interventions are more appropriate for the female populations (Bloom, 1999; Chesney-Lind, 2000; van Wormer, 2010). In fact, some studies have examined the effectiveness of interventions that utilize empowerment theory in the program development. Pomeroy, Kiam, and Abel (1998) examined whether psycho-educational groups would reduce certain mental health symptoms and ultimately recidivism with female inmates. This intervention utilized a combination of reality therapy, Lazarus' model of behavior modification, cognitive theory, and empowerment theory. St. Lawrence et al. (1997) compared an intervention grounded in social cognitive theory intervention with an intervention grounded in theory of gender and power for effectiveness on HIV risk reduction.

Therapeutic focus among interventions with this population varies greatly. As indicated earlier, some programs target substance abuse (Kubiak, 2004; Kubiak et al.,

2004; Sacks, 2008). However, others target job related behaviors (Calabrese & Hawkins, 1988), smoking cessation (Cropsey et al., 2008), grieving (Ferszt, 2009), parenting training (Moore & Clement, 1998), mental health symptoms (Pomeroy et al., 1998), correctional adjustment (Sultan, 1984), HIV risk reduction (St. Lawrence et al., 1997), and traumatic risk reduction (Valentine & Smith, 2001). With the exception of substance abuse, all programs had different therapeutic foci.

Animal Assisted Therapy

In the past few decades, researchers have looked at the human-animal relationship to identify how this bond can be used for improving the health, psychological well-being, and overall functioning of various populations (Barker et al., 2005; Hines, 2003; Jalongo et al., 2004; Marr et al., 2000; Motomura et al., 2004; Parish-Plass, 2008; Prothmann et al., 2006; Souter & Miller, 2007). These researchers have found a variety of methods in which people use animals for therapeutic purposes. One such approach is animal-assisted therapy (AAT). AAT is a goal-directed intervention in which an animal is a primary element of the treatment process (Delta Society, 2008). It is an interaction between patients and a trained animal and human handler, with a therapeutic objective (Barker & Dawson, 1998).

There have been several studies reporting positive results of AAT interventions with populations struggling with mental health concerns (Barak et al., 2001; Barker & Dawson, 1998; Barker, Pandurangi, & Best, 2003). Recently, Nimer and Lundahl (2007) conducted a meta-analysis in an attempt to measure an average effect of AAT and to examine the strength of this effect. They reviewed 250 studies. Their investigation yielded 49 studies reporting specifically on AAT, with a minimum of five participants in

the treatment group, written in English, and providing sufficient data to compute an effect size.

The results from this analysis indicated that AAT could be an effective intervention. They found that at times, AAT was either as effective as or more effective than other established interventions. Of the 49 studies that met the inclusion criteria in this analysis, they found that dogs were the animal used most often. The data suggested a moderately high effect size with the use of dogs and that this was not the case with other animal groups.

The Use of Animals in Corrections

Prisons use various forms of interventions for therapeutic purposes. Ranging from individual and group therapy to vocational training, corrections facilities attempt to provide inmates with the resources necessary to develop healthy coping skills and function successfully in society.

For many years corrections facilities have used animals as rehabilitative or therapeutic tools (Fournier et al., 2007; Furst, 2006). In 2006, Furst did a national survey of state correctional systems in order to determine the degree to which corrections was utilizing prison-based animal programs (PAPs). Thirty-six states reported using these programs. The most commonly reported program model was the community service model. This approach has inmates working to rehabilitate characteristically unadoptable animals to improve problematic behaviors so that the animals are adoptable out to the community. The next most commonly reported program model was the service animal socialization model. This program has prisoners socializing and teaching dogs to be service dogs to assist individuals with disabilities.

While these programs exist, the research evaluating the effectiveness of these programs is limited. The few studies that do exist, typically utilize small sample sizes, do not quantitatively measure change, or are unpublished program evaluations.

In 2007, Turner published a qualitative study of a dog-training program with incarcerated men. She identified the following themes from her interviews: patience, parenting skills, helping others, increased self-esteem, social skills, normalizing effect, and calming effect on the environment. The data suggested that the dog-training program had positive effects on the rehabilitation for the program participants. Most notable was improvement in self-esteem after participating in the program.

Based on the community service model, the Nova Institution for Women in Canada implemented the Pawsitive Directions Canine Program (Richardson-Taylor & Blanchette, 2001). Their unpublished comprehensive evaluation found that, by providing the inmates with the responsibility of caring for and training dogs, this program improved the women's self-esteem, generated positive institutional changes, and altered the community's opinion of these incarcerated women. However, important to note is that of the 49 women who participated in this program, only 3 women completed. Most attrition was due to parole.

In 1994, Walsh and Mertin looked at changes in self-esteem and depression in eight women participating in a Pets and Therapy (PAT) program. These women were responsible for caring for and training dogs rejected from a program for guide dog training to place in homes in the community. They found significant changes between pre- and post- test scores on both self-esteem and depression. However, similar to the

Richardson-Taylor and Blanchette (2001) study, the sample size of this study was also small.

Methods

Program Description

In March 2008, the Utah Department of Corrections implemented a pilot AAT program with incarcerated women housed in the mental health inpatient unit. The program consisted of eight 1-hour weekly or twice weekly sessions. The group approach was a combination of psycho-education and therapeutic intervention. Group sessions focused on the development of social skills, coping skills, and self-awareness. Group topics included boundaries, personal safety issue, developing trust, being trustworthy, responsibility, understanding emotions, expressing emotions in a healthy manner, and learning new behaviors.

This group implemented the use of a dog in order to facilitate the educational and therapeutic goals. Each week, group members would sit in a circle on the floor and the dog would remain in the center of the circle. Human-animal interaction was based on group member or animal initiative. As group proceeded, the dog would visit members offering each individual his affection. If a group member wanted to interact with the dog, she would quietly call him to her.

As the groups discussed the weekly topics, the facilitator would use the dog as a model. For example, during a discussion on boundaries, the group facilitator would encourage group members to discuss what the dog's boundaries are, how people are able to recognize them, and how the dog might communicate those boundaries in different situations. The facilitator then tied this to recognizing the boundaries of other people.

During the week that addressed learning new behaviors, the inmates attempted to teach the dog a new trick. The facilitator then encouraged discussion about how that felt for the inmate and how the inmate thinks it may have felt for the dog. The purpose was to recognize that learning new behaviors is often frustrating, confusing, and difficult. The facilitator then tied this to learning new coping skills. A detailed description of this program can be found in Jasperson (2010). This article presented a clinical case example, creating the basis for the current study.

Rather than focusing on the mental health inpatient residents, the program for this study targeted female inmates housed in the general prison population. This study is intended to measure the effects of an AAT group on female inmates. The aim of this study was to answer the question: How does an AAT group utilizing a dog as a therapeutic tool affect the symptom distress, interpersonal relationships, and social role performance of female inmates at Utah State Prison? We hypothesized that an AAT group utilizing a dog as a therapeutic tool would decrease participant's symptom distress, improve their interpersonal relationships and improve their perspective about their social role performance.

Design

The research design was experimental and quantitative. We gathered data during pretest, posttest, and at 30-day follow-up. Both IRB and Department of Corrections Review Board (DRB) gave approval prior to groups starting. The group facilitator conducted five rounds of the eight-session group curriculum from February 12, 2009 through May 27, 2010.

Participants

The inclusion criterion was women currently incarcerated at the Utah State Prison in Draper, Utah. Participant selection was randomized systematic sampling. We generated a list of all potential inmates using the prison's data tracking system. Organized based on housing assignment, the list was not alphabetical. We selected inmates based on 30 integers between 1-10 that we obtained using a random number generator at random.org (Haarh, 2010). Scrolling down this list, we chose a beginning point at random. From that point, we moved down the list number of names indicated by the first random integer. When we arrived at the name, the individual was selected. We then took the next random integer and moved down the list again. We continued this process until 30 names were selected.

After all 30 inmates were selected, we screened individuals for immediate exclusion criteria. These criteria included: 1) placement in the inpatient mental health program, 2) current level two (maximum-security) status, 3) documented felony sexual offense, and 4) previous participation in the AAT program. Women housed in the inpatient mental health unit and women classified as maximum security cannot interact with the general population inmates and were therefore excluded from potential study participants. Excluding participants based on documented felony sexual offense was a restriction mandated by the DRB. Next, we checked parole or termination dates to ensure the inmate's incarceration during the entire duration of the group and for the 30-day follow-up assessment period. We administered a screening questionnaire to the remaining inmates and consented them into the study.

Upon completion of the screening questionnaire, we disqualified inmates that reported allergies to dogs, an extreme fear of dogs, or indicated they were unavailable during both group times. If disqualified due to availability, we placed them back into the selection pool for future groups. If disqualified for any other reason, participants remained out of the selection pool for future groups. We randomly assigned the remaining inmates to the experimental or control group. Experimental and control group sizes ranged from 9 to 11 participants. This process was repeated for all five group cycles.

Measures

The *Outcome Questionnaire -45.2* is a self-report measure intended to assess individual change (OQ: Lambert, Gregersen, & Burlingame, 2004; Lambert, Morton, Hatfield, Harmon, Hamilton, Reid et al., 2004; Wells, Burlingame, Lambert, Hoag, & Hope, 1996). This is a measure designed for repeated administration. The original data reported that internal consistency (Cronbach's alpha) of the total score to be 0.93, and the subscales ranging from 0.92 to 0.71. Test retest reliability (Pearson product-moment correlation coefficient) was also high with a total score of .84 and subscales ranging from .82 to .78 (Lambert, Morton, Hatfield, Harmon, Hamilton, Reid et al., 2004). Since the collection of the original data, other studies have reported similar reliability and validity (Kaufman, 2000; Nielsen et al., 2004; Umphress, Lambert, Smart, & Barlow, 1997).

Data Collection

During each group cycle, we collected pretest data on the first day of group, posttest data on the last day of group, and30-day follow-up data sometime in the week of 30-days post group conclusion. We scored each OQ according to the protocol. We

entered the results into SPSS for analysis. This measure provides three individual scores and one total score. The three individual domains scored are Symptom Distress, Interpersonal Relations, and Social Role. The total score provides an overall indication of generally how distressed the individual is (Lambert et al., 2004).

Results

We obtained demographic data for 81 original participants (see Table 4.1). Participant ages ranged from 19 to 58 with a mean age of 36. Most participants reported incarcerations for multiple offenses. More than half (N=50) indicated that they were in prison for a drug related offense. Twenty-five participants indicated their current incarceration was for a parole or probation violation. Seventeen inmates reported they were in prison for an act of violence. Finally, 36 indicated "other" generally naming money crimes as the reason for their incarceration.

Fifty-six percent of the participants reported that their current incarceration was their first time to prison with the next highest percentage of nearly 20% stating that they had been incarcerated four or more times. The study sample was relatively ethnically homogenous with nearly 76% identifying as White, 17% as Hispanic or Latino, 2% American Indian or Alaska Native, 2% Native Hawaiian or Other Pacific Islander, and 1% as Mixed. Most participants, 70%, reported an education level of high school diploma or GED while nearly 15% indicated they had not attained their high school diploma.

The attrition rate was 8.6% leaving a sample size of 74 for final analysis. We contacted all dropouts and obtained their reasons for leaving the group prior to

Table 4.1

Demographic Data

	Frequency	Percent
Reason for Incarceration		
Drug Related Offense	50	61.0
Parole/Probation Violation	25	30.5
Act of Violence	17	20.7
Other	36	43.9
Incarceration Number		
This is my first time	46	56.1
Twice	11	13.4
Three times	8	9.8
Four or more times	16	19.5
Race/Ethnicity		
American Indian or Alaskan Native	2	2.4
Native Hawaiian or Other Pacific Islander	2	2.4
White	62	75.6
Hispanic or Latino	14	17.1
Mixed	1	1.2
Highest Education Level Completed		
Did Not Graduate High School	12	14.8
High School Diploma/GED	57	70.4
Associates Degree	7	8.6
Bachelor’s Degree	2	2.5
Master’s Degree	2	2.5

completion. Two participants reported having gone to the Board of Pardons during the group process and received a parole date prior to being able to complete the 30-day follow-up assessment. The prison sent three participants to county jail for housing, due to overcrowded housing concerns at the prison, before being able to complete the Time two assessments. Two participants reported that they felt overwhelmed with programming requirements. Since the research group was the only activity that they were not mandated to participate in, they opted to drop out of this activity.

Analysis

In order to ascertain whether we could drop the incomplete data cases, we ran the dataset with the imputed values with 10 imputed sets. There were no noticeable differences in the results. Therefore, we dropped the seven incomplete cases for the final analysis.

The processing of the raw question data from the OQ followed the recommendations of the manual (Lambert et al., 2004). We replaced individual missing questions with the mean score for each scale at each time point. The final scale scores (Social Role, Interpersonal Distress and Symptom Distress) were all sum scores of their individual questions. The total score was the sum of the scale scores.

During the Time one assessment period, due to an instrument reproduction error, most participants received a copy of the OQ that was missing a question that was part of the construct of symptom distress. Therefore, we dropped this question in terms of calculating the individual score but included it during the mean calculation in order to keep with the established norms of this assessment.

We used a one-way repeated measures ANOVA to analyze the between group differences in each score for time one, time two, and time three. A one-way ANOVA tests for differences among two or more independent groups. A one-way repeated measures ANOVA tests the equality of means when the study participants are subjected to repeated measures (UCLA: Academic Technology Services Statistical Consulting Group, 1997). In repeated measures ANOVA, of interest is the between-subject effects (i.e., control vs. experimental group), within-subject effects (i.e., time 1, time 2, time 3), and interactions between the two types of effects (i.e., control vs. experimental group for time 1, time 2, and time 3) (SAS Institute Inc., 1999). We did pre-analyses to check the appropriateness of the data for this analysis. We present the means and standard deviations for the three individual domains scores and the overall total score in Table 4.2.

Results indicated that there were no significant interaction effects (groups x time) for the total score, Wilks' $\lambda = 0.99$, F (2,71) = .52, $p = .595$, $\eta^2 = .02$, social role performance, Wilks' $\lambda = 0.96$, F (2,71) = 1.48, $p = .235$, $\eta^2 = .04$, symptom distress, Wilks' $\lambda = 0.98$, F (2,71) = .742, $p = .48$, $\eta^2 = .02$, and interpersonal relationships Wilks' $\lambda = 0.996$, F (2,71) = .14, $p = .867$, $\eta^2 = .004$.

However, there were significant time effects for the total score, Wilks' $\lambda = 0.34$, F (2,71) = 18.48, $p = .000$, $\eta^2 = .34$, social role performance, Wilks' $\lambda = 0.89$, F (2,71) = 4.43, $p = .000$, $\eta^2 = .11$, symptom distress, Wilks' $\lambda = 0.63$, F (2,71) = 20.91, $p = .000$, $\eta^2 = .37$, and interpersonal relationships Wilks' $\lambda = 0.79$, F (2,71) = 9.3, $p = .000$, $\eta^2 = .21$. Improvement from Time one to Time two with a maintained improvement at Time three was consistent across both the experimental and control groups indicating that the

Table 4.2

Means and Standard Deviations

	Mean	Std Deviation	N
Experimental			
Social Role-Time 1	14.33	4.27	36
Social Role-Time 2	12.57	4.2	36
Social Role-Time 3	12.65	3.8	36
Symptom Distress-Time 1	45.47	11.77	36
Symptom Distress-Time 2	37.98	12.2	36
Symptom Distress-Time 3	37.16	13.98	36
Interpersonal Relationships-Time 1	21.40	4.57	36
Interpersonal Relationships-Time 2	19.3	5.51	36
Interpersonal Relationships-Time 3	19.91	6.37	36
Total-Time 1	81.19	17.79	36
Total-Time 2	69.85	19.52	36
Total-Time 3	69.72	22.24	36
Control			
Social Role-Time 1	12.25	4.39	38
Social Role-Time 2	11.89	5.2	38
Social Role-Time 3	11.57	4.82	38
Symptom Distress-Time 1	39.56	14.31	38
Symptom Distress-Time 2	34.6	12.77	38
Symptom Distress-Time 3	33.58	13.06	38
Interpersonal Relationships-Time 1	19.82	5.12	38
Interpersonal Relationships-Time 2	17.13	6.32	38
Interpersonal Relationships-Time 3	17.98	6.3	38
Total-Time 1	71.63	21.93	38
Total-Time 2	63.62	22.11	38
Total-Time 3	63.13	22.37	38

psycho-educational group was effective. However, the lack of interaction effects indicated that the independent variable, the dog, did not have a significant effect.

Discussion

Statistical analysis indicated that the psycho-educational group significantly improved participants' symptom distress, interpersonal relationships, and social role performance. However, there was no difference between the control and experimental groups indicating that having a dog present during the group process did not influence the reported improvements.

Even though we were not able to support the hypothesis of this study, these results generate several questions that may be useful for future evaluation. First, would group size have influenced the participant's ability to connect with the animal? The group sizes for this study ranged from 9 to 11 participants. The larger the group size, the less personal connections occur. Group sizes of five or six individuals may have created an environment more conducive to human-animal interaction.

Next, questioning whether the gender of group participants is a relevant variable, particularly with the incarcerated population, may be an important aspect to consider. Female inmates experience intimate connections with their fellow inmates in ways that you rarely see in male prisons. Women engage in activities such as providing emotional support through a hug and engaging in nurturing activities such as braiding each other's hair. We do not frequently observe this type of intimacy with the male inmate population. This generates a question about whether human-animal interaction with the male incarcerated population may provide a source of comfort or connection that is otherwise lacking in their daily lives.

There are several other reasons to consider when questioning why the null hypothesis was not rejected. First, the original minimum sample size of 80 represented a sample size from an estimated population size of 350 inmates. A 95% confidence interval was used with a degree of variability .20 (as this is a relatively homogeneous population) +/- 5% margin of error. It is possible that a larger sample size was needed in order to reject the null hypothesis. The final sample size was just shy of the originally anticipated minimum sample size. The attrition rate was 8.6% leaving a sample size of 74 for final analysis. Even though we ran the dataset with the imputed values with 10 imputed sets and no noticeable differences were found, more power may have been needed in order to reject the null hypothesis.

Finally, whether the OQ 45-2 was the proper instrument to measure change in this population and whether the constructs being measured are appropriate for an AAT intervention are both important questions to pose. While the internal consistency for this instrument has been high with a number of different populations (Kaufman, 2000; Nielsen et al., 2004; Umphress, Lambert, Smart, & Barlow, 1997), the female incacerated population is not among those populations. This is a limitation that should be considered and addressed for future research with this population.

Clinical Implications

The group curriculum for this intervention addressed life skills deficits with this population. The psycho-educational group was successful in helping participants develop these skills. However, the lack of between group differences indicated that the presence of the dog in this group was not a contributing factor to this improvement.

One reason for this may be the group focus. Several studies in the field of AAT report on the effectiveness of this therapeutic component with interventions focused on skill development (Barak, Savorai, Mavashev, & Beni, 2001; Kovács, Bulucz, Kis, & Simon, 2006; Kovács, Kis, Rózsa, S., & Rózsa, L.2004; Marr, French, Thompson, Drum, Greening, Mormon et al., 2000). However, a distinctive characteristic of these studies is their implementation with populations struggling with mental illnesses and more specifically, living in psychiatric inpatient settings. Unique difficulties often accompany living with a severe mental illness. Hospitalized individuals are often isolated from society, likely experiencing less social interaction, and struggling with developing the coping skills needed manage their mental health concerns successfully. Therefore, AAT may affect them differently.

The Jasperson (2010) article that indicated promising effects of this intervention on group members implemented this intervention with female inmates struggling with severe mental illness and housed in the mental health inpatient unit. The participants in this study were female inmates housed in the general prison population who may not necessarily have been struggling with major mental health concerns. Therefore, the findings from this study indicate that adding AAT to a psycho-educational group focused on skill development would likely not be beneficial for individuals with adequate social support and dealing with mental health concerns in a functional manner.

These research groups were psycho-educational in nature, focusing on the development of coping and social strategies. Establishing insight and developing skills needed to cope and interact with others in healthier ways does not require a great deal of emotional vulnerability. A possible alternative approach may be to implement AAT in a

group focusing on dealing with trauma or grief issues. A therapeutic group environment directed toward difficult emotional issues may be a more appropriate forum to utilize the comforting connection between the therapy animal and the group participant.

Directions for Future Research

In addition to the clinical implications, the criminal justice and AAT literature would also benefit from researchers implementing this intervention approach with the female incarcerated population with a therapeutic focus of trauma. Most incarcerated women report a history of physical and/or sexual abuse (James & Glaze, 2006). For many of them, this trauma played a role in their pathway to their criminal involvement (Chesney-Lind, 2000). Therefore, addressing their trauma therapeutically may be a vital component to their rehabilitation. It would be extremely useful to know whether having a dog present in a therapeutic group addressing the difficult emotional issues surrounding traumatic events would allow group participants to feel emotionally safe and open in the group environment. If discovered that AAT helped facilitate that healing process, than further research should examine whether including this therapeutic focus with the AAT component in substance abuse programs within corrections might contribute to successful rehabilitation and possibly lower recidivism rates.

Next, researchers attempting to measure the effectiveness of this approach should establish therapy groups with smaller group sizes. The group sizes for this study were large and therefore less intimate. Smaller group sizes are likely to promote increased human-animal interaction. Research examining the effectiveness of this type of group environment could provide results that would reflect the impact of this relationship more accurately.

Limitations

Two main limitations of this study are important to note. First, the female inmate population in Utah is relatively homogenous in terms of race and crime. This is very unusual compared to other female prisons in the United States. Therefore, this limits the generalizability of the study results. Future studies can address this limitation by replicating this study in a prison environment that is more heterogeneous and representative of the nation's female criminal population.

The second limitation concerns baseline OQ scores. Given the high rates of Borderline Personality Disorder within this population, establishing longer-term baseline scores prior to the intervention may have been useful. The primary features of borderline personality disorder are impulsivity and severe emotional reactivity (American Psychiatric Association, 2000). These individual frequently complain about extreme and frequent mood swings. In fact, some scholars have stated that borderline personality disorder sometimes resembles bipolar mixed episodes (Hatchett, 2010). Therefore, administering the OQ over the course of several weeks to establish an initial baseline would provide a more accurate assessment of therapeutic change over time.

While AAT did not appear to influence the outcome for these group participants, this study provided important direction for future research on this topic. AAT is an approach that practitioners can implement in many therapeutic modalities. Exploring the populations and approaches that are most effective is a vital part of research in this domain.

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CHAPTER 5

CONCLUSION

As the presence of women behind bars becomes more prevalent, so are problems that accompany their unique mental health and rehabilitative concerns. Incarcerated women report high levels of psychological distress. They demonstrate high rates mental health concerns as exhibited by interpersonal hostility, recurrent suicidal or self-harm behaviors, impulsivity, severe reactivity, and highly unstable interpersonal relationships. Recent studies found that women with low levels of education, income that falls below the poverty level and with high rates of substance abuse largely make up this population. There is a clear need for interventions targeting this population and assisting them to develop the skills necessary to cope effectively in everyday society.

Rehabilitation requires a shift in perception and behavior. This shift calls for a proactive therapeutic and psycho-educational approach teaching pro-social behaviors and coping skills. For the female incarcerated population this change may necessitate a gender responsive approach that incorporates addressing the unique life circumstances that led to their involvement in criminal behaviors. Although the development of healthy skills is essential, practitioners should implement interventions in a context where they incorporate ways of addressing trauma and economic marginalization into the rehabilitative approach. AAT is one therapeutic component clinicians can consider integrating into this approach. By allowing individuals to utilize an animal as a

securebase, we create the opportunity for openness and receptiveness to the therapeutic value of the group experience.

Organization and MAP Connections

In the first article of this dissertation, I explored types of therapeutic interventions implemented with the female inmate population. In this systematic review, I looked at the therapeutic focus and theoretical orientation, identified the intervention and the purpose of the intervention, summarized the findings of each study, identified the study designs, and assessed the quality of the studies.

I found a limited number of high quality studies evaluating the effectiveness of therapeutic interventions with the female incarcerated populations. This article concluded with recommendations for ways to improve the quality of research with this population and discussed practice implications for mental health practitioners.

In article two, I brought together my primary theoretical orientation of attachment theory with a specific intervention with female inmates at the Utah State Prison. This manuscript described the needs of female inmates with mental illness, discussed research that focused on the therapeutic approach of AAT, and identified how this intervention, grounded in attachment theory, may benefit this population. I provided a detailed description of a piloted AAT program, and used a clinical case example from this program to demonstrate the potential benefits of AAT with this population.

The clinical case example provided a promising outcome for an AAT group with this population. I addressed clinical implications and limitations and identified needs for future research.

The final article presented the findings from a study I developed from an expansion of the AAT program described in article two. With this pretest-posttest control-group design, I examined whether an AAT group utilizing a dog as a therapeutic tool affected the symptom distress, interpersonal relationships, and social role performance of female inmates at Utah State Prison.

While analysis indicated that the participants significantly improved in all areas examined, I found no significant difference in this improvement between the control and experimental groups. I discussed limitations of this study and provided recommendations identifying variables that may influence the effectiveness of this approach.

Attachment Theory and Animal Assisted Therapy

AAT is an intervention that can be understood through the lens of attachment theory. AAT is an approach based on emotional connection and relationship. The therapist uses the animal as a tool to assist the client in emotional expression and insight development (Parish-Plass 2008).

Primary characteristic of individuals with an insecure attachment styles are lack of trust and/or fear of abandonment. They typically deal with these emotions either with intense attempts to maintain proximity or by denial of attachment needs and avoidance of emotional relationships. Feelings of uncertainty or perceived threat or danger typically trigger these responses (Mikulincer & Shaver, 2005). During the therapy process, the therapist may trigger some of these emotions as she brings up difficult issues. The animal's presence during the therapy process creates opportunities to circumvent difficulties that may arise. For example, the client's observations of the therapist's positive and nurturing interactions with the animal casts the therapist in a less threatening

light. Further, the client may open up more willingly to an animal as the animal lacks judgment about choices they have made or experiences they have had (Parish-Plass, 2008).

In her article discussing AAT with children suffering from insecure attachment due to abuse or neglect, Parish-Plass (2008) discusses the findings outlined in an unpublished article by Zilcha and Mikulincer (2007). She reported that, through a series of studies, Zicha and Mikulincer found that the human-animal relationship can provide a place to work through difficult attachment issues and that the animal can function as a secure base during the therapy process.

Research looking at attachment behaviors in offenders has found that secure attachment styles in this population are under-represented compared to general population individuals (Frodi, Dernevik, Sepa, Philipson, & Bragesjö, 2001; T. Ross & Pfäfflin, 2007; van Ijzendoorn, Feldbrugge, Derks, de Ruiter, Verhagen, Philipse et al., 1997). My justification for having the dog present during group was to use the relationship that develops between each participant as a secure base. I hoped this would allow the participant to explore difficult emotional issues, help manage distress, and create the opportunity to be open and receptive to the therapeutic value of the group experience.

Clinical Implications

I developed the group curriculum for the intervention discussed in chapters three and four with the intent of addressing life skills deficits with this population. As demonstrated by the significant improvement and exceptionally strong effect size noted in Chapter 4, the group created an environment conducive to the development of these

skills. However, the lack of between group differences indicates that the presence of the dog in this group was not a contributing factor to this improvement.

Several studies in the field of AAT report on the effectiveness of this approach added to therapeutic interventions focused on skill development (Barak, Savorai, Mavashev, & Beni, 2001; Kovács, Bulucz, Kis, & Simon, 2006; Kovács, Kis, Rózsa, S., & Rózsa, L.2004; Marr, French, Thompson, Drum, Greening, Mormon et al., 2000). However, a distinctive characteristic of these studies is that researchers implemented them with populations struggling with mental illnesses and more specifically, living in psychiatric inpatient settings.

The clinical case example I presented in Chapter 3 pointed toward promising effects of this intervention on group members. However, this contrasted with the findings from the study in Chapter 4. In addition to the experimental design, the characteristics of the target population were the primary differences between these chapters. In Chapter 3, I implemented the intervention with female inmates struggling with severe mental illness and housed in the mental health inpatient unit. However, Chapter 4 described a study with female inmates housed in the general prison population who may not necessarily have been struggling with major mental health concerns.

Women housed in the inpatient mental health unit generally require additional assistance or treatment because of the unique difficulties that accompany living with a severe mental illness. Unfortunately, many incarcerated women with mental illness have not learned the skills needed to function successfully with their disorder. In addition, they are isolated from the rest of the female prison population, experiencing less social interaction. Therefore, the presence of a dog in this group may have affected them

differently. Their increased isolation may create a stronger need for the attachment component of AAT. Further, the likelihood that they had a higher deficit in coping skills may strengthen the need for the presence of the dog as a teaching tool.

The contrasting findings in Chapters 3 and 4 have important clinical implications. Higher functioning individuals would likely not benefit from the addition of AAT to the group process in a psycho-educational group focused on skill development. However, AAT may be a beneficial component to consider adding to the group process for individuals who experience increased isolation, as mental health inpatient and hospitalized patients do, or for clients who struggle with heightened mental health concerns.

Another clinical significant element of AAT is group focus. For example, participants in a group focused on processing difficult emotional issues, such as trauma, may benefit more from the attachment component of AAT. There is a great deal of research demonstrating the effectiveness of AAT when group focus is trauma (Lefkowitz, Prout, Bleiberg, Paharia, & Debiak, 2005; Parish-Plass, 2008; Reichert, 1994). One of the reasons for this documented success may be that addressing trauma in group therapy requires the client to experience emotional vulnerability. This openness may trigger feelings of uncertainty and, as indicated earlier, the animal's presence during the therapy process creates opportunities to overcome the difficulties that may arise (Parish-Plass, 2008).

Female inmates struggle with an exuberant amount of trauma. The research documenting success with this therapeutic concern can guide mental health clinicians

working with this population. If AAT can help facilitate the healing process, practitioners may want to consider incorporating this tool into their therapeutic modality.

Policy Implications

Women's trajectories into crime and patterns of drug abuse typically differ from those of men. Characteristically, their socially embedded crimes and drug use revolve around interpersonal relationships (Bloom, Owen, & Covington, 2003). As outlined in chapter two of this dissertation, researchers and practitioners implement a considerable number of interventions attempting to rehabilitate this population while addressing these unique needs. While some researchers report success in current intervention approaches (Kubiak, Young, Siefert, & Stewart, 2004; Spiropoulos, Spruance, Van Voorhis, & Schmidtt, 2005), the ability of corrections facilities to adequately meet the treatment needs of this population remains questionable (Calhoun, Messina, Cartier, & Torres, 2010).

This rise in the number and the distinctive characteristics of women under criminal justice supervision necessitates that prison administrators consider these unique needs during program development. However, it is essential that they base their considerations on quality research findings. Often, when an intervention in one setting appears successful, correctional facilities adopt the practice, thinking it will fit in their system (Henderson, Young, Farrell, & Taxman, 2009). Fortunately, we are seeing a shift in this practice as evidence-based treatment becomes more common within the correctional setting (Henderson et al., 2009).

The findings from this dissertation provide further support of the need to conduct empirical evaluations and to implement evidence-based treatment with this population.

The systematic review demonstrated a deficit of quality research in this area. The contrasting findings between chapters three and four reinforce the need to measure quantifiable change in a systematic and valid manner.

Directions for Future Research

The criminal justice and AAT literature would benefit from researchers implementing this intervention approach with the female incarcerated population with a therapeutic focus of trauma. For many of these women, trauma played a role in their pathway to their criminal involvement (Chesney-Lind, 2000). Therefore addressing their trauma therapeutically may be a vital component to their rehabilitation.

My future research agenda includes evaluating AAT in group therapy focusing on trauma symptoms. I intend to explore current research on trauma therapy with this population and identify key components to success. It would be extremely useful to know whether AAT would allow participants to feel emotionally safe and open in this type of group environment. If discovered that AAT helped facilitate that healing process, than my future research would examine whether including this therapeutic focus with the AAT component in substance abuse programs within corrections might contribute to successful rehabilitation and possibly lower recidivism rates.

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APPENDIX A

ANIMAL ASSISTED THERAPY GROUP CURRICULUM

Session 1: Orientation

(Begin with rules of the group – presented and consequences if violated.)

- Go over general group rules
- Establish what the routine will be
    - Develop guidelines for entering the room, voice level, movements, etc.
- Ask animal owner to describe animals qualities, personality, likes, dislikes, and clarify any specific rules and guidelines
- Why would animal therapy be helpful? What can we gain from interacting with animals?
    - Mental Health
        - Increase verbal interactions between group members
        - Increase attention skills (i.e., paying attention, staying on task)
        - Develop leisure/recreation skills
        - Increase self-esteem
        - Reduce anxiety
        - Reduce loneliness
- Discuss how understanding animals can help to better internalize social skills
    - Approaching new people and being appropriate
    - Becoming more aware of yourself in your space-How do you influence others? How is your behavior interpreted?
    - "Feel good"-Happiness that comes from being around animals
    - Feeling understood
- Group members ask questions of dog handler-What do you think you would need to know?
- Have group members recall one thing each that they remember being told about the animal.

Group Duration Assignment: Keep a journal about what we discuss in group. I want you to write about your thoughts and feelings about group/dog/group members. I also want you to write down when things happen during your day that you can tie into group topics.
Assignment: Think about what the dog handler told you about the dog. What do you know about his/her personality? Remember a fact for the next group.

Session 2: Boundaries and Safety Issues and Trust

- Review rules
- Go through routines
- Go over assignment from last group
- Review how to approach the dogs, asking for volunteers from the group to demonstrate.
- Discuss:
    - What are boundaries
    - Why are they important
    - How do you "know" someone's boundaries? Use dog as an example
    - Explain to the group we all have boundaries and that those boundaries must be respected
- Discuss dog's boundaries and why it is important to respect boundaries
- Discuss personal boundaries
    - Have group members describe one of their boundaries
    - After all group members have described a boundary, ask them to tell the group what they remember about another group member's boundaries
- How are personal boundaries similar to the dog's boundaries?
- What does it mean to be "safe"?
- How does this differ from "trust"?
- What do boundaries have to do with safety and trust?
- Approach dog
    - What are his signs of feeling safe/unsafe?
    - What are his signs of trust/mistrust?
    - How does a dog know whether to trust you without knowing you?

Assignment: Focus on being more aware of your boundaries. How do you "hold" your boundaries? How do people know you are holding your boundaries? Do you notice others holding boundaries? What does that look like?

Session 3: Responsibility and Trust

- Review rules
- Revisit routine
- Discuss assignment from last week

- State the importance of caring for the dog and being sure their needs are met
- What can caring for a dog provide for someone personally?
- How can this be related to self-care?
  - Hygiene
  - Understanding "care" needs
  - Follow-through
  - Consistency
- What does this have to do with boundaries?

- Have a handler demonstrate the appropriate way to groom a dog:
  - Brushing the hair, teeth, feeding the dog, love, going to the vet (doctor), etc. - Stress gentleness and empathy
  - Group members take turns performing grooming activities
    - What did you notice about the dog's reactions; i.e., uncomfortable, nervous, tense, scared, relaxed, happy, etc?
    - What does this have to do with trust?
    - What about boundaries?
  - Responsibility and attending to relationships
    - Nurture
    - Communication
  - Discuss the dogs at-home dynamics

Assignment: Focus on ways that you "self-care". What do you do for yourself that makes it "OK" for people to be around you? What do you NOT do that may make it uncomfortable for people to be around you? Do you demonstrate gentleness/empathy for yourself or others?

Session 4: Review of first three sessions

- Review assignment
- Review rules
- Review past session activities
- Perform grooming activities
- While performing grooming activities:
  - Ask group members how they felt initially (on the first day) when entering group
  - Ask them what they think the dog may have felt when they came into the new place
  - Ask group members what they thought or felt when they first saw the dog
  - Ask group members what they think the dogs felt when the dogs first saw them
- In what ways have safety/trust changed?
- How can a safe environment become unsafe?
- Earning back trust
- How does responsibility play into earning back trust?
- Recall what the handler told us about the dog's personality on the first day
- In what ways have you utilized this knowledge?
- What does this knowledge have to do with relationships?

Assignment: Pay attention to the feeling of safety/trust in your environment. How do you contribute to the overall safety/trust that you or others experience? Are you consistent? Are you able to take responsibility for your role in the overall safety/trust of your environment?

Session 5: Feeling angry and upset

- Review assignment
- Perform grooming activities during group discussion
- Question: What is anger?
    - What is "really" going on when a person is angry?
        - Sad, vulnerable, scared, etc.
- Elicit examples from group members about times that they have been angry/upset
    - How did you know you were angry/upset?
    - What does it feel like (in your body) when you're upset?
- Elicit examples of times that group members have seen others angry/upset
    - How did you know they were upset?
- Do animals ever get upset/angry?
- What kinds of things make an animal upset?
    - Revisit past group topics: Boundaries, safety/trust, care
    - What do you think the dog does when he/she is upset?
- What do you think the owner should do when they notice their dog is upset?
- Ask the handlers to explain to the group what their dog's body cues are when it is upset (Example: Ears pinned back; the nap of the neck hairs go up, the tail stands erect, they pose in an aggressive stance; they growl, their eyes get focused on what they perceive is the threat; they breathe heavily. . .)
- How do you respond physically when you get upset (Example: clenched fists; knotted-up stomachs, tight or wrinkled forehead; tight jaw, bulging eyes, clenched teeth; tightened fist or toes; stiff shoulders, etc.).
- Discuss misdirected anger
- Healthy ways of displaying anger
- Stress it is okay to be angry, but where it gets tricky is how we vent this anger. There are appropriate ways to work the anger out of our minds and bodies. WHAT ARE SOME OF THEM?
- How does anger affect relationships?

Assignment: Pay attention to your body and outward responses next time you are angry. Ask yourself why you are angry? Are you actually feeling sad? Scared? Did becoming "aware" during an angry moment impact your response? Did it impact your feeling?

Session 6: Learning New Behaviors

- Review assignment
- We all have unique interests, talents and knowledge
- Why is learning new behavior important?
- What are "tricks"?
- Does the dog know tricks?
- How do you teach a dog tricks?
- How do you reinforce this?
- How is this similar to teaching yourself new behaviors?
    - Positive reinforcement
    - Feeling "effective" and self-esteem
- Attempt to teach dog tricks
- What does this teach us?
    - Patience?
    - Understanding limitation?
    - Consistency?
- Understanding learning new behaviors
    - reward, punishment
    - positive and negative reinforcement
    - association
- Learning new behaviors and coping skills: How these two ideas related?

Assignment: Focus on learning a new coping skill. In what ways is it difficult? It what ways were you reinforced?

Session 7: Animal and Human Emotions

- Review assignment
- How have your emotions changed toward the dog/group?
- What does that change look like?
    - anticipation
    - dread
    - solace
- How do you know when someone is
    - mad
    - sad
    - happy
    - frustrated
    - disappointed
    - scared
    - surprised
    - hyper
    - bored
    - shy
- How do we know when the dog feels these things?
- Did you experience any of these emotions when you were teaching the dog tricks?
- Did the dog?
- How were these emotions similar/different? Why?
- Work on tricks from last session
- Talk about emotions
    - Address the termination of group
    - What emotions does the anticipation of group ending bring up?
- Revisit learning process
- How does this discussion tie into boundaries? Relationships? Coping skills?

Assignment: Pay attention to the emotions of people around you. How do they display their emotions?

Session 8: Choices and Consequences

- Do animals get to make choices?
- How do you think they feel when they get to make a choice, i.e.,
    - Happy
    - Confused
    - Frustrated
    - Unsure
- Instruct the IM and handlers to offer the dog a choice between a toy and a snack.
    - Tell the group which of the two the dog chose and why
- What does this have to do with "immediate gratification"?
    - Ex: Snack-right now, while the toy has prolonged benefit
    - Consequences
- Offer choice to dog again: Did he/she choose the same?
- What impact does this have?
    - Eg: reinforce, increased craving, etc.
    - Analogy: Drug use

Positive Consequences: Praise and Encouragement

- When your dog does a good job at a trick how does he know he did a good job?
- What kinds of rewards, praise or encouragement are there?
    - verbal, (Good Job!, Nice Going!)
    - physical, (Pat on the back, High Five, a hug);
    - gesture, (thumbs up, a wink). .
- What rewards does the dog like?
- How do you know?

- Spend time saying "good-bye" and discussing the feelings that the group members are experiencing.

APPENDIX B

SCREENING QUESTIONNAIRE

We would like you to answer a few questions. Answering these questions is 100% voluntary, and no negative actions will occur if you do not complete the questionnaire. This survey should take no more than a couple of minutes to complete. Your responses will not be used to evaluate you and will in no way impact you or your status in UDC. Rather, questions will be used to evaluate the group effectiveness. No risks are anticipated from completing this questionnaire. **All Answers will be kept confidential.**

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1. If offered the opportunity to participate in an 8-week group focusing on social skills, coping skills, and interpersonal relations, would you be interested? ___ Yes ___ No
* If no, you do not need to fill out the remainder of this questionnaire. Thank you for your time!

2. Do you have allergies to dogs that you are aware of? ___ Yes ___ No

3. Do you have an overwhelming fear of dogs that would prohibit you from interacting with or being in close proximity with a dog? ___ Yes ___ No

4. If selected to participate in this study, you will be randomly assigned to one of two groups. If assigned to a group where there is no animal, would you still be willing to commit to participation for the full 8-weeks? ___ Yes ___ No

5. a) Would you be available for the following group times:
Wednesday 6:00 PM-7:00 PM ___ Yes ___ No
Thursday 6:00 PM – 7:00 PM ___ Yes ___ No
b) If you are unavailable during those times would you like to be placed back in the selection pool for future classes? ___ Yes ___ No

6. Do you need assistance with reading or writing? ___ Yes ___ No
* If so, accommodations will be made to assist you with this aspect of the study.

If you have questions, complaints or concerns, you can contact Rachael Jasperson. If you feel you have been harmed as a result of participation, please call Joanna Bettmann at 801-587-7600 who may be reached Monday thru Friday between 8:00 AM and 5:00 PM

APPENDIX C

OUTCOME QUESTIONNAIRE 45.2

Instructions: Looking back over the last week, including today, help us understand how you have been feeling. Read each item carefully and mark the box under the category which best describes your current situation. For this questionnaire, work is defined as employment, school, housework, volunteer work, and so forth.

	Never	**Rarely**	**Sometimes**	**Frequently**	**Almost Always**
1. I get along well with others.					
2. I tire quickly.					
3. I feel no interest in things.					
4. I feel stressed at work/school.					
5. I blame myself for things.					
6. I feel irritated.					
7. I feel unhappy in my marriage/significant relationship.					
8. I have thoughts of ending my life.					
9. I feel weak.					
10. I feel fearful.					
11. After heavy drinking, I need a drink the next morning to get going (If you do not drink, mark "never.")					
12. I find my work/school satisfying.					
13. I am a happy person.					
14. I work/study too much.					

15. I feel worthless.					
16. I am concerned about family troubles.					
17. I have an unfulfilling sex life.					
18. I feel lonely.					
19. I have frequent arguments.					
20. I feel loved and wanted.					
21. I enjoy my spare time.					
22. I have difficulty concentrating.					
23. I feel hopeless about the future.					
24. I like myself.					
25. Disturbing thoughts come into my mind that I cannot get rid of.					
26. I feel annoyed by people who criticize my drinking (or drug use). (If not applicable, mark "never.")					
27. I have an upset stomach.					
28. I am not working/studying as well as I used to.					
29. My heart pounds too much.					
30. I have trouble getting along with close friends and acquaintances.					
31. I am satisfied with my life.					
32. I have trouble at work/school because of drinking or drug use.					
33. I feel that something bad is going to happen.					
34. I have sore muscles.					
35. I feel afraid of open spaces, of driving, of being on buses, subways, and so forth.					
36. I feel nervous.					
37. I feel my love relationships are full and complete.					

38. I feel that I am not doing well at work/school.					
39. I have too many disagreements at work/school.					
40. I feel something is wrong with my mind.					
41. I have trouble falling asleep or staying asleep.					
42. I feel blue.					
43. I am satisfied with my relationships with others.					
44. I feel angry enough at work/school to do something I might regret.					
45. I have headaches.					

APPENDIX D

RESEARCH QUESTIONNAIRE

We would like you to answer a few questions. Answering these questions is 100% voluntary, and no negative actions will occur if you do not complete the questionnaire. This survey should take no more then a couple of minutes to complete. Your responses will not be used to evaluate you and will in no way impact you or your status in UDC. Rather, questions will be used to evaluate the group effectiveness. No risks are anticipated from completing this questionnaire. **All Answers will be kept confidential.**

Your data will be kept confidential. Data and records will be stored in a locked filing cabinet or on a password protected computer. Only the researcher and members of the study team will have access to this information. No other individuals within the Department of Corrections will have access to any of your responses. On this questionnaire, you will see a place for your offender number. We ask for this information so that we can compare your responses after a 30-day follow-up. As your data is entered, you will be assigned a different number and this number will represent your responses. In publications, your name will be not be used.

1. Offender Number: _____

2. Age:_____

3. I am incarcerated for: (check all that apply)

___ A drug related offense ___ An act of violence
___A parole/probation violation ___Other – Please specify:
_____

4. I have been in prison:

___ This is my first time ___ Twice
___ Three times ___ Four or more

5. Race/Ethnicity (Check all that apply):

___American Indian or Alaska Native
___Asian
___Black or African American
___Native Hawaiian or Other Pacific Islander
___White
___Other _____
___Hispanic or Latino

6. Highest Education Level Completed:

___ I did not graduate high school
___ High School Diploma/GED
___ Associate's Degree
___ Bachelor's Degree
___ Master's Degree
___ Other – Please specify _____

7. What were your feelings toward the dog on the first day of group?

8. Did these feelings change? If so, how?

9. What were your feelings toward other group participants on the first day of group?

10. Did these feelings change? If so, how?

11. Do you feel like you learned anything about yourself during this group process? If so, what?

12. Have your ideas about yourself or relationships changed as a result of this group?

13. What did you like about group?

14. What didn't you like about group?

If you have questions, complaints or concerns, you can contact Rachael Jasperson. If you feel you have been harmed as a result of participation, please call Joanna Bettmann at 801-587-7600 who may be reached Monday thru Friday between 8:00 AM and 5:00 PM.