# A PILOT EVALUATION OF JAIL PROGRAMMING

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## DEDICATION

This dissertation is dedicated to my truly amazing parents, Richard and Susan Frank. Everyone fortunate enough to have two strong, dedicated, loving, and supportive parents often speaks of how important their parents are to them. I also know that my parents stand alone in their role as parents and there will not be words in the English language for me to do them justice. I have lost count of the number of friends over the years that have asked my mother and/or father to adopt them. I am truly, forever blessed to be their daughter.

Dad, your never-ending support and love have meant more to me than I can explain. You have served as not only my father, but also an unparalleled role model, both personally and professionally. To this day, I still learn from you and strive to leave the legacy you have in my own profession and with my own family. You have shown me through your own example what it means to be a person with integrity and I am forever grateful for that example.

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# Chapter 1

## INTRODUCTION

### 1.1. Overview

This research focused on evaluating the impact of a voluntary day program offered to women in a Dallas County Jail. The purpose of this research was to evaluate how Resolana programming impacted a woman's suicidality. This research will help practitioners know if holistic programming correlates with a decrease in suicidal thinking in the jail setting. Further, changes in mental health symptomology and empowerment will be evaluated. After a brief introduction, this dissertation will cover risk factors of suicide both in the general population and within the correctional setting. The theoretical framework guiding the research, as well as the methodology, including a description of the program will follow. The dissertation will conclude with a chapter on the results of the objectives and an analysis of the findings, concluding with the limitations of the research and implications.

### 1.2. Description of the Problem

Suicide prevention and intervention within United States jails and prisons is an issue that has long been overlooked. This chapter will present background about the growing statistic of women incarcerated within the United States' penal system and their mental health needs. Current approaches to suicide intervention will also be discussed, as well as the proposed model of intervention for this evaluation. It is important to note that much of the literature surrounding suicide while incarcerated is focused on males (Charles, Abram, McClelland, & Teplin, 2003; Kariminia et al., 2007; Teplin, Abram, McClelland, 1996). Findings and statistics concerning women will be given when possible, but a lack of studies focused on women will limit what is reported. Similarly, prisons have been the subject of studies more than United States jails.

Therefore, the lack of literature about practices and trends in United States jails is supplemented by literature from United States prisons.

### *1.2.1. Women Incarcerated*

The number of women in the United States that are in jail, prison, on probation, or on parole has increased dramatically over the past several decades and now exceeds one million (The Sentencing Project, 2011; Bloom & Covington, 2008)—a 587% increase between the years of 1980 and 2011 (The Sentencing Project, 2011). Since 1980, the number of female inmates has increased at twice the rate of male inmates (The Sentencing Project, 2007). More recent statistics illustrate that the number of females confined to U.S. county and city jails increased by 18% between midyear 2010 and 2014 (U.S. Department of Justice, 2015). Dallas County Jail, the seventh largest jail in the U.S., reports that 21% of the individuals booked into the jail are women (Resolana, 2010). Political push to combat the "war on drugs" has resulted in this increasing number of women incarcertated, as well as longer and harsher sentences for these offenders (Zaitzow, 2010). In 2011, 25.1 % of women were incarcerated in state prisons due to drug offenses (Carson & Sabol, 2012).

### *1.2.2. Mental Health Needs*

The mental health needs of inmates is not an issue that can be ignored. The U.S. Department of Justice's Bureau of Justice Statistics (2006) reported that 64 percent of local jail inmates have symptoms of serious mental illness. A more recent report found that 44 out of 50 states now have a jail or prison that holds more individuals with severe mental illness than the largest state mental hospital (Kuehn, 2014). Jails and prisons in the United States hold approximately 356,268 inmates in comparison to 35,000 in state mental hospitals (Kuehn, 2014).

The mental health of inmates, as well as the services they receive while incarcerated, has been both a growing concern and an area of attention in health care research.

Given the growing awareness of mental health needs, the fact that the quality of health services, including mental health services, within the jails and prisons has been called into question is disconcerting. A concern expressed surrounds the idea that there is not equality between healthcare provisions afforded to the general population and the provisions provided to inmates (Felthous, 2014; Helms, Guiterrez, & Reeves-Guiterrez, 2013; Silva, 2010). Incarceration is often the first source of contact with healthcare for incarcerated women, which further points to the importance of these services (Marks & Turner, 2014; Silva, 2010).

Of further concern in regards to jail mental health services, is that it is unlikely that the current state of jails and prisons provides a supportive and healthy environment for mental health care. The current culture of disempowerment and deprivation in jails and prisons is at odds with a therapeutic approach (Bowen, Rogers, & Shaw, 2009; Yang, Kadouri, Revah-Hevy, Mulvey, & Falissard, 2009). The environmental impact on the mental health of inmates has also been moderately addressed. Fellner (2006) comments on the issue saying:

> There is an inherent tension between the security mission of prisons and mental health considerations. The formal and informal rules and codes of conduct in prison reflect staff concerns about security, safety, power, and control. Coordinating the needs of the mentally ill with those rules and goals is nearly impossible. (p. 391)

Fellner (2006) also discusses the need for changes to be made in correctional settings to adequately treat those with mental illness. Fellner (2006) states:

> …prisons typically treat prisoners with mental illness identically to all other inmates. There are no special allowances. Officials confine them to the same

facilities, expect them to follow the same routines, and require them to comply with the same rules. (p. 394)

*1. 2. 3. Suicide as the Ultimate Risk for Unmet Health Needs*

Suicide among state and federal inmates has long been overlooked and continues to be a serious problem (Felthous, 2011). Between 2006 and 2010, the Bureau of Justice Statistics found a 9.6% increase in jail suicides (Noonan & Ginder, 2013). Although only 12.5% of these deaths were female, the Bureau of Justice Statistics did not include any statistics for those that had attempted suicide or endorsed any suicidal ideation (Noonan, 2015). These omissions may suggest an underrepresentation of women within the corrections system dealing with acute suicidal ideation whom are at risk. Given the inadequacy of mental health services provided to incarcerated women, alarming statistics about inmate suicide may in part be due to poor treatment of mental health disorders.

. Statistics illustrate that suicide is still the leading cause of death in jails across the country (Hayes, 2012). Further, these rates of suicide surpass statistics of suicide in the general population (Jenkins et al., 2005; Marzano, Rivlin, Fazel, & Hawton, 2009) where suicide is the 10$^{th}$ leading cause of death (Drapeau & McIntosh, 2015). There is also evidence that rates of suicide may be as high, or even higher, amongst female inmates, despite their lower rates in the general population (Charles et al., 2003; Mackenzie, Oram, & Borrill, 2003).

*1. 2. 4. Brief Description of Current Approaches to Suicide Intervention*

The literature in regards to suicide intervention within the correctional setting focuses largely on three elements: suicide risk assessment and monitoring, the environment of the jail itself, and the presence of mental health staff (Lester & Danto, 1993; World Health Organization, 2007). Factors that have been identified as being strong indicators of possible suicidal ideation

or behavior are utilized in order to identify inmates that should be monitored more closely. Monitoring at-risk inmates often involves close observation by staff, isolation, and limited access to material possessions, including clothes (Hayes, 1995). In terms of the environment of the jail itself, the use of segregation in jails and prisons is used to combat suicide. However, the literature illustrates that segregation itself is in fact a risk factor for suicidal behavior (Bonner, 2006; Felthous, 2011; Hayes, 1989; Van Orden et al., 2010; World Health Organization, 2007). Lastly, the presence of mental health staff is a discussed solution to combat suicide. Lester and Danto (1993) comment on the extensive process needed to begin to use these tactics to address suicide in this environment.

> …each institution (or set of similar institutions) may have to devise a screening process tailored especially to itself. This would require a good deal of time and effort, funds for the hiring of skilled research-oriented (rather than treatment-oriented) psychologists to construct the specific instruments and devise the complete screening process and the existence of a large inmate population on which to develop and validate an assessment procedure. (p. 76)

Suicide interventions studied in the community have illustrated promise in assisting those with suicide ideation. Specifically, cognitive behavior therapy and dialectical behavior therapy have some support in the literature, although these findings are not conclusive and also their effectiveness is often linked to a specific population. These interventions have not been shown to be effective in the jail environment. In fact, the jail environment is often not conducive to these interventions- a topic which will be explored further in this paper. This intervention provides an alternative approach to treating women incarcerated, and is in fact an intervention

that is realistic within this environment. Resolana, a program of Volunteers of America Texas (will now be referred to as Resolana), provides such a program.

## 1.3 Purpose Statement

Resolana is a community based, non-profit organization in Dallas County that provides holistic, gender sensitive, and rehabilitative programming to incarcerated women. Women participating in programming all reside in Lew Sterret Dallas County Jail for differing periods of time. The purpose of this research is to evaluate how Resolana programming impacts a woman's suicidality. Although the literature arguably provides an evidence-base for effective interventions for suicide, this efficacy is often not translated to the incarcerated population. Therefore this research is important in terms of contributing to the literature about how to best intervene with women endorsing suicidal ideation in a correctional setting.

# Chapter 2

# LITERATURE REVIEW

## 2.1 Introduction

There are multiple risk factors listed in the literature that relate to increased risk for suicidal ideation and behavior while incarcerated. As a group, inmates are at high-risk with highter suicide rates than their community counterparts (World Health Organization, 2007). Characteristics associated with suicide risk in the free world, such as addiction, mental illness, and trauma, are overrepresented within the inmate population (Blaauw, Kerkhof, & Hayes, 2005; Hayes, 1989; Sarchiapone, Carli, Di Giannantonio, & Roy, 2009; Zaitzow, 2010).

Research has clearly demonstrated a relationship between women's criminal justice involvement and traumas, mental illness, and addiction (Battle, Zlotick, Najavitis, & Winsor, 2002; Trestman, Ford, Zhang, & Wiesbrock, 2007). These risk factors will be reviewed, as well as others including psychosocial functioning and demographic variables. The chapter will close with a review of current findings about the effectiveness of utilized suicide interventions.

## 2.2 Addiction

Substance abuse is associated with increased risk for suicide and suicide attempts (Goldsmith, Pellmar, Kleinman, & Bunney, 2002). In the general population, it has been reported that women with substance abuse disorders are 4.4 times more likely to have a serious suicide attempt (Goldsmith et al., 2002). Within the incarcerated population, substance use problems have also been demonstrated to be a risk factor for suicide (Fazel, Cartwright, Norman-Nott, & Hawton, 2008).

When drug abusers are incarcerated, the forced abstinence from substances and not having adequate coping skills may precipitate suicidal thinking (Kerkhof & Bernasco, 1990).

The large percentage of inmates experiencing withdrawal from drugs and/or alcohol leads to one of the reasons that the jail setting is a high-risk environment for suicidal behaviors (Goss, Peterson, Smith, Kalb, & Brodey, 2002). Further, addiction is an identified risk factor in those that are likely to attempt suicide while in the corrections setting (Daniel & Fleming, 2005; Fazel et al., 2008; Hayes, 1989; Sarchiapone et al., 2009; Xiao-Yan, Felthous, Holzer, Nathan, & Veasey, 2001).

Given the connection between substance abuse and risk for suicidal ideation and behaviors, statistics regarding the presence of inmates with substance issues is imperative to consider. The "war on drugs" is often cited as a reason for increasing arrest and incarceration among women (Dalley, 2014; Farkas & Hrouda, 2007). Women offenders have drug addictions that coupled with low support systems, lack of education, and unemployment lead to incarceration (Dalley, 2014; LaMoure, Meadows, Mondschein, & Llewellyn, 2010). The U.S. Department of Justice (2005) reported that in 2002, 68% of jail inmates endorsed symptoms that met criteria for substance dependence or abuse. Two in five inmates were classified as being dependent on alcohol and drugs, and one in four as abusing alcohol or drugs according to criteria set forth in the *Diagnostic and Statistical Manual of Mental Disorders,* fourth edition (DSM-IV) (U.S. Department of Justice, 2005). Over half (68%) of female inmates reported substance dependence in the same study (U.S. Department of Justice, 2005). In line with these statistics, Green, Miranda, Daroowalla, and Siddique (2005) found that 74% of the women in their sample had drug abuse problems.

It has also been established in the literature that substance abuse is often used to cope with mental illness or trauma (Goodman, Rosenberg, Mueser, & Drake, 1997; RachBeisel, Scott, & Dixon, 1999). Hyde (2011) found that 82% of all jail inmates met criteria for either mental

health problems, substance use problems, or both. Given this connection, it is logical that the presence of mental illness and trauma among inmates are two more risk factors that need to be considered.

## 2.3 Mental Illness

When one considers the presence of a psychiatric disorder and risk for suicidal behavior, the literature identifies some pertinent findings. The link between psychiatric disorders and serious suicide attempts has been well established in the literature (e.g., Daniel & Fleming, 2005; Goss et al., 2002; Molnar, Berkman, & Buka, 2001; Rohde, Mace, & Seeley, 1997; Sarchiapone et al., 2009; Teplin et al., 1996; Xiao-Yan et al., 2001). Interestingly, research has also found a higher percentage of mental illness in jails, than in state or federal prisons or the general public (Grant & Hasin, 1999; Teplin, 1990, 1994). Therefore, the identification and treatment of mental illness for those incarcerated is essential.

The number of incarcerated men and women with severe mental illness has grown substantially in the last few decades. This growth is so drastic that jails and prisons may now be the largest mental health provider in the United States (Fellner, 2006; Zaitzow, 2010). Specifically, it is projected that there are as many as 200,000 to 300,000 men and women in United States jails and prisons that are suffering from mental disorders (Fellner, 2006). There are three times as many people with mental illness in prisons than in mental hospitals, and the rate of mental illness in prisons is two to four times greater than in the general population (Zaitzow, 2010). James and Glaze (2006) reported that 12% of females in the general population have symptoms of a mental disorder, compared to 75% in local jails. The Bureau of Justice Statistics (2006) interviewed a sample of inmates and found that female inmates have a higher rate of mental illness than male inmates. Specifically in local jails, statistics illustrated that 75%

of female inmates compared to 63% of male inmates endorsed the presence of a mental illness (U.S. Department of Justice, 2006).

Suicide attempters while incarcerated commonly have both a history of past attempts and psychiatric treatment (Daniel & Fleming, 2005; Jenkins et al., 2005; Sarchiapone, et al., 2009; Xiao-Yan et al., 2001). DuRand, Burtka, Federman, Haycox, and Smith (1995) found that 95% of jail detainees who died by suicide suffered from a treatable psychiatric disorder. The literature suggests that incarceration often exacerbates mental illness (Gibbs, 1987). Bonner (2006) found that conditions of isolation are associated with higher levels of depression. This environmental control is a topic of further discussion in this research.

Depression, hopelessness, and anxiety are important to consider independently given their prevalence within the incarcerated population (Daniel, 2006). Among the mentally ill inmates, depressive disorders are more often linked to suicide than any other psychiatric illness (Fazel et al., 2008; Hurley, 1989; Teplin et al., 1996; White, Schimmel, & Frickey, 2002). Recent research has found the most common mental illnesses afflicting women offenders to be: posttraumatic stress disorder, mood disorders (anxiety and depression), and borderline personality disorders (Broner, Kopelovich, Mayrl, & Bernstein, 2009; Ross & Lawrence, 2009).

Depression and hopelessness are the two most common psychological states at the time of the suicidal act (Redding, 1997). Although depression and suicide are often co-occurring, hopelessness and suicide have a stronger correlation than depression and suicide (Redding, 1997). Marzano, Hawton, Rivlin and Fazel (2011) found associations between near lethal self-harm and depression, aggression, impulsivity and hostility, as well as history of familial suicide. Anxiety experienced by inmates, especially at entry into the jail or prison or just before release,

is also a risk factor (Daniel, 2006). Further, anxiety symptoms mixed with agitation, depression, and hopelessness increase the risk (Daniel, 2006).

Suicide research has also established that previous attempts is a high risk factor for future death by suicide; in fact, the rate of suicide deaths among those who have made previous attempts is more than 100 times the rate of those who have not (Maris, Berman, Maltsberger, & Yufit, 1991). A history of previous suicidality is overrepresented in jail populations as well (Charles et al., 2003). DuRand et al. (1995) reported that two thirds of the inmates in their study who died by suicide communicated their intent in advance and one third had made previous attempts.

## 2.4 Trauma

Trauma can be experienced in many different forms during both childhood and adulthood. It has been well established that women offenders have higher rates of both child and adult maltreatment (Bloom, Owen, & Covington, 2003; Broner et al., 2009; Pollock, 1998). Green et al. (2005) reported that women in jail reported high levels of exposure to trauma, especially interpersonal trauma (90%) and domestic violence (71%). Inmates are also more likely as children to have experienced the loss of a parent through divorce, death, or desertion in comparison to the general population (Haycock, 1991). Jails also contain a disproportionate number of inmates who have been separated from parents through placement in foster care (Haycock, 1991).

The research also illustrates that incarcerated women are more likely than their male counterparts to report extensive histories of physical, sexual, and emotional abuse (Gido & Dalley, 2010; James & Glaze, 2006; Messina, Burdon, Hagopian, & Prendergast, 2006; Singer, Bussey, Song, & Lunghofer, 1995). Often, an underlying cause of substance abuse and mental

illness is trauma that is associated with abuse experienced by the individual (Bloom et al., 2003; Messina & Grella, 2006). Similar to statistics related to differences between the sexes when looking at the presence of mental illness, the literature states that 57% of women report physical or sexual abuse before imprisonment versus 16% percent of men (Little Hoover Commission, 2004).

It is important to also point out the connection between trauma and posttraumatic stress disorder (PTSD). In regards to the connection between PTSD and suicide, anxiety disorders, including post-traumatic stress disorder (PTSD), are associated with approximately 20 percent of suicides (Goldsmith et al., 2002). In fact, PTSD has demonstrated the strongest association with suicidality of any anxiety disorder (Goldsmith et al., 2002). Also, connections have been shown between trauma and PTSD, as well as between PTSD and substance use disorders (Stewart, Conrod, Pihl, & Dongier, 1999). PTSD is a common diagnosis associated with abuse and trauma, but the most common mental health diagnosis for women who are trauma survivors is depression (Bloom & Covington, 2008).

In terms of the connection between trauma and suicidal ideation, jail inmates whom are experiencing suicidal ideation report more childhood sexual and physical abuse than inmates who are not suicidal (Blaauw, Arensman, Kraaij, Winkel, & Bout, 2002; Lester, 1991; Xiao-Yan et al., 2001). Female inmates report higher rates of sexual abuse, which is a risk factor for suicide (Charles et al., 2003). Specifically, the rate of a suicide attempt is 2 to 4 times more likely among women who have a history of sexual abuse (Molnar et al., 2001). Read, Agar, Barker-Collo, Davies, and Moskowitz (2001) found that childhood sexual abuse is a better predictor of suicidality 20 years later then a current diagnosis of depression. Jenkins et al. (2005) found that prisoners in England who had attempted suicide or experienced suicidal ideation in

the last week or last year were more likely to have experienced a variety of adverse life events, particularly violence or sexual abuse. Similarly, different forms of childhood abuse were found to be associated with lethal self-harm in a study conducted in England among female inmates (Marzano, Hawton, Rivlin, & Fazel, 2011).

## 2.5 Comorbidity

The high rates of incarcerated women with serious mental illness, substance use disorders, and a history of trauma is well documented in the literature (Nowotny, Belknap, Lynch, & DeHart, 2014). In fact, this comorbidity is easily illustrated in reviewing the studies mentioned in the previous sections about addiction, mental illness, and trauma. Individuals that suffer from both a psychiatric disorder and a substance use disorder are at an even greater risk for suicide and jail detainees are more likely to have such a history in comparison to the general population (Abram & Teplin, 1991; Abram, Teplin, & McClelland, 2003; Haycock, 1991; Xiao-Yan et al., 2001). The research also shows that this comorbidity is higher among female jail detainees than their male counterparts (Abram & Teplin, 1991), putting women at a higher rate for suicidal behavior while incarcerated (Charles et al., 2003). Jordan et al. (2002) commented about those incarcerated suffering from this dual diagnosis saying: "There is a subgroup of troubled women whose impairments result not only in their receiving mental health and or substance abuse treatment services, or both, but also in their being repeatedly incarcerated" (p. 324).

## 2.6 Psychosocial Functioning

Psychosocial risk factors and suicidal behavior encompasses many variables to consider. Research identifies some of these variables as: stressed support systems, undesired placement within the jail, disciplinary confinement, interpersonal conflicts, legal processes, parole setbacks, and chronic medical conditions (Daniel, 2006). The literature suggests that nearly 50% of those who die by suicide experience acute stressors at the time of suicide (White et al., 2002; Xiao-Yan et al., 2001).

An association between near lethal self-harm and a stressed support system has been demonstrated in the literature (Mackenzie et al., 2003; Marzano et al., 2011). Further, inmates are less likely to be married (Bonner, 2000; Vanyur & Owen, 2003; Winkler, 1992), and even if an inmate is married, the isolation from the relationship due to the incarceration can increase the risk for suicide (Hayes, 1994; Liebling, 1993). Jenkins et al. (2005) found that prisoners in England who had attempted suicide or experienced suicidal ideation in the last week or last year were more likely to have a small support system. Although a link between separation from children and suicidal ideation and/or behavior has not been reported, qualitative studies do demonstrate that this loss leads to anxiety and fear, which negatively impacts a woman's health in jail (Douglas, Plugge, & Fitzpatrick, 2009; Harner & Riley, 2012). One woman commented on this impact saying: "You've got a lot on your mind, you're a mother, you're locked away and your children have been taken from you, you're nothing, you're nursing a wound inside you. That's a pain that no pain relief – no painkiller can kill" (Douglas, Plugge, & Fitzpatrick, 2009, p. 750).

Related to undesired placement in the jail, the most critical time period to protect for suicidal behavior is the first 24 to 48 hours of incarceration (Daniel, 2006; Hayes, 1989; Lester &

Danto, 1993; Marcus & Alcabes, 1993; Pompili et al., 2009). Solitary confinement or segregation housing has been found to be a major risk factor for inmate suicide (Bonner, 2006; Felthous, 2011; Hayes, 1989; Kaba et al., 2014), and is in fact where most inmate suicides occur (Daniel & Fleming, 2006; Hayes, 1989). Similarly Marzano et al. (2011) found that being in a single cell and having negative experiences while incarcerated were associated with lethal self-harm. Lastly, as most institutions are overcrowded and short-staffed, there is an increased suicide risk due to lack of access to medical care, increase in assaults, lower staff-offender ratio, lack of opportunity for activity, lack of food and clothing, unwanted interactions, and rapidly changing social structures within the prison (Daniel, 2006).

Although solitary confinement has been demonstrated to be a risk factor, so too are interpersonal conflicts in the jail environment. The literature has shown that bullying is also a risk factor that needs be considered (Blaauw, Winkel, & Kerkhof, 2001). This conflict as a risk factor for suicide is logical when one considers the impact of bullying in a demanding and controlling environment, coupled with the individuals vulnerability, including poor coping skills, withdrawl from substances, and mental health issues (Blaauw, Kerkhof, & Vermunt, 1997; Liebling, 1992; Mackenzie et al., 2003; Zaitzow, 2006). Another consideration is the impact of housing the mentally ill together in this environment. Kuehn (2014) comments on this practice saying: "Those who are sent to jail are typically thrust into distressing conditions, often a small cell with another person who is also experiencing symptoms, that can exacerbate their condition" (p. 1954). Obviously, this issue of housing in the corrections system is complicated and worthy of discussion and consideration.

## 2.7 Demographic Variables

As stated previously, women represent the fastest growing segment of prison and jail populations, despite the fact that their crime rate is not increasing dramatically (Zaitzow, 2010). Zaitzow (2010) concludes that incarcerated women "…are characteristically women of color, poor, unemployed, and single mothers of young children" (p. 5). Women in the jail environment also tend to have fragmented families and other family members involved in the corrections system (Zaitzow, 2010). It is also important to note that nearly half of all women in prison are currently serving a sentence for a non-violent crime (Zaitzow, 2010).

When one examines demographic variables in relation to suicidal behavior, many of the same demographic variables hold. More then half of all inmates who die by suicide in prison are between the ages of 25 and 34 (Daniel & Fleming, 2005; Fazel, Cartwright, Norman-Nott, & Hawton, 2008; Hayes, 1989; Marcus & Alcabes, 1993; Xiao-Yan, Felthous, Holzer, Nathan, & Veasey, 2001); suicide is the 3rd leading cause of death for this age group in the general population as well (McIntosh & Drapeau, 2012). They are also often single, unemployed, and lack family support (Daniel & Fleming, 2006; Fazel et al., 2008; Fellner, 2006; Hayes, 1989; Marcus & Alcabes, 1993; Marzano et al., 2011; Xiao-Yan et al., 2001).

Considering ethnic differences for suicide risk leads to conflicting findings in the literature. Some studies have concluded that African Americans are overrepresented in the prison population, but are underrepresented among suicide deaths and attempts (Charles et al., 2003; Marcus & Alcabes, 1993; Rodgers, 1995; Xiao-Yan et al., 2001). There is debate among scholars about how to explain this statistic. Daniel (2006) writes: "Some researchers suggest that the differences among black, white, and Hispanic stuicide rates can be explained by sociocultural factors such as better preparation for prison life by blacks as opposed to that of whites and

Hispanics" (p. 166). Other scholars believe that inmate suicide is complex and risk factors cannot solely depend on sociocultural background (Haycock, 1991). In the general population suicide rates among African Americans are also lower in comparison to other ethnicities (McIntosh & Drapeau, 2012). Jenkins et al. (2005) found that prisoners in England who had attempted suicide or experienced suicidal ideation in the last week or last year were Caucasian, young, single, and were less educated. Possible explanations for these differences may be attributable to differences in studying jails versus prisons or geographical differences.

## 2.8 Suicide Interventions

Reviewing the traditional intervention strategies in the corrections system is essential in order to assess current practices and make improvements. Statistics suggest that approximately 700 jail suicides occurred during 2005 and 2006, which points to the continued need for intervention (Cohen, 2012). Suicide prevention and intervention tactics in the corrections systems largely center around three main concepts: suicide assessments and/or no-suicide contracts, environmental manipulations, and training of staff (Hayes, 1995; Lester & Danto, 1993; Pompili et al., 2009). In fact these three interventions are presented as "best practices" for jails and prisons to prevent death by suicide (Lester & Danto, 1993; Pompili et al., 2009; World Health Organization, 2007). Due to the abundance of these prevention strategies represented in the literature, a brief overview of each will follow.

### *2.8.1. Suicide Assessments*

It has been well documented that the first days in jail constitute a period of high risk. Therefore, the literature focuses on the importance of correctional facilities assessing for suicidal ideation immediately after arrest and again if circumstances (i.e. change in criminal case) or conditions (i.e. change in housing) change (World Health Organization, 2007). Suicide

assessments are largely based on the risk factors identified in the literature. Given the plethora of identified risk factors and the complexity of an inmate's life path, creating a comprehensive suicide assessment for each individual seems unrealistic. In fact, screening and assessment is not a popular tactic among correctional staff because suicide assessments are thought to identify too many false positives, and these false positives encourage staff to disregard potential warning signs of suicide from other inmates (Polpili et al., 2009; Stathis, Litchfield, Letters, Doolan, & Martin, 2008).

Although no suicide contracts are still also largely utilized in the jail setting, the validity behind such a contract is questionable when considering an acutely suicidal individual. The question of suicide contract's validity is also noted in the general population (Jobes, 2006). Hayes (1995) comments on this scenario saying: "…once an inmate becomes acutely suicidal, his or her written or verbal assurances are no longer sufficient to counter suicidal impulses" (p. 107). Lester and Danto (1993) also point out that when reviewing suicide assessment tools in the corrections systems, there are many from which to chose. This variation deals with the differences in all jails and prisons and the need for institutions to devise a screening process that is tailored to itself (Lester & Danto, 1993).

*2.8.2. Environmental Manipulations*

One of the most common environmental manipulations within the corrections setting is the use of isolation (Hayes, 1995; Zaitzow, 2010). Those on suicide watch are often transferred to a single cell and monitored constantly. In fact the literature suggests that such an intervention strategy is counterproductive. Daniel (2006) concludes: "As a suicide-prevention measure, suicidal inmates should not be placed in segregation units, because such placement does not promote improved mental health" (p. 170).

Reducing access to lethal means is a prevention effort that is discussed widely in the literature across environmental settings. The support for this prevention effort is evident in the jail setting due to the practices in place when one is under suicide watch- a single cell, no clothing or other personal belongings allowed, and 24 hour supervision to name a few. The underlying assumption here is that in many cases, high periods of suicide risk are relatively short and therefore limiting access to lethal means may delay an attempt until the high-risk period concludes (Florentine & Crane, 2010; Mann et al., 2005). However, Hayes (1995) comments on this practice saying: "…this practice is very degrading and worsens feelings of depression" (p. 107). Hayes (1995) suggests that instead of concentrating on these environmental modifications, corrections facilities should concentrate on providing "…essential human interaction with staff or other inmates, to hopefully provide alternative solutions and services" (p. 107).

Kaba et al. (2014) examined the impact of solitary confinement on jail inmates in New York City. Medical records over four years (2010-2013) were analyzed. Although only 7.3% of admissions included solitary confinement, from that group, 53.3% of acts of self-harm and 45.0% of acts of potentially fatal self-harm occurred. Recommendations from this study included modifying practices within the corrections system to identify more clinical interventions for those with serious mental illness in place of the use of solitary confinement.

*2.8.3. Training of Staff*

The training of correctional staff is also abundant in the literature. The assumption is that if staff are trained to recognize early signs of suicide risk in inmates and intervene appropriately then deaths by suicide will in turn be reduced. It is important that jail staff understand the motivations and cognitions behind suicidal behavior in order to combat reactions of seeing such behavior as manipulative (Daniel, 2006). In fact, the Department of Mental Health and

Substance Abuse of the World Health Organization said in 2007 that the essential element to any suicide prevention program is properly trained correctional staff. Topics of essential training include: identification of high-risk offenders, identification of signs and symptoms of mental illness, and how to sensitively and appropriately handle any communication of intent (Daniel, 2006; Van der Feltz-Cornelis, 2011).

The research suggests that suicides in the correctional setting are most often attempted in inmate housing units, and during the late evening hours or weekends. These are times when mental health staff are most often not present, which points to the concentration on training officers in signs and symptoms to watch for as well as appropriate interventions.

To this point, the intervention approaches have been focused on administrative policies and environmental manipulations and have been specific to the jail setting. In the rest of the chapter, approaches to treat suicidal ideation or other underlying issue will be presented.

Daniel (2006) identifies the presence of staff as a specific strategy saying: "A comprehensive mental health and psychiatric service delivery system supported by the administration forms the foundation of preventive efforts" (p. 169). Daniel (2006) goes on to comment on the likelihood of having such a staff saying: "Fully trained mental health and correctional staff in prisons are rare because of lack of qualified professional pools, budgetary constraints, …and the nature of correctional work" (p. 169). Although mental health care in jail and prison settings is often more comprehensive for inmates then what they receive on the outside, there is still concern that services remain inadequate (Zaitzow, 2010). The literature suggests that access to treatment for drug-related health problems for female inmates is often limited and that health care offered is often mediocre and delivered by professionals whom are under-skilled (Lindquist & Lindquist, 1999; Maeve, 1999). The state of mental health care in

jails and prisons is questioned, as is the seriousness of mental illness in this environment in the following excerpt:

> 'I'm going to kill myself here and they don't care…I know how to do it. I can. I swallowed a pencil the other day…That was fun. I shove things in my legs all the time and they don't care.' R.M. expressed a desire to return to the state mental hospital. 'I wish I could,' she says, pouting like a child. 'They don't have enough staff. It's ok. If they don't take me, I'm going to kill myself.' (Human Rights Watch, 2002, pg. 43)

*2.8.4. Pharmacotherapy*

Historically, suicide has been treated with pharmacotherapy treatments of the underlying disorders associated with suicide (i.e. major depression, substance abuse, bipolar disorder, schizophrenia). The logic behind this approach is that psychiatric disorders are present in at least 90% of suicides, and an astounding 80% are untreated at the time of death (Mann et al., 2005). Although psychotropic medications have been correlated with a decrease in the risk of suicide, randomized control trials have not shown that pharmacotherapy prevents death by suicide (Bolton, Gunnell, & Turecki, 2015).

Antidepressant medications have been shown to decrease depression and other symptoms of psychiatric disorders in randomized control trials. However, these medications have not been shown to be effective in reducing suicide rates (Griffiths, Zarate, & Rasimas, 2014; Gunnell, Sapena, & Ashby, 2005; Khan, Khan, Kolts, & Brown, 2003; Mann et al., 2005). Lithium has also been shown to significantly reduce suicide when compared with a placebo in randomized control trials (Baldessarini et al., 2006; Bolton et al., 2015; Cipriani, Hawton, Stockton, & Geddes, 2013). Mood stabilizers have been shown to decrease suicide risk, but these studies have been observational (Bolton et al., 2015; Rihmer, & Gonda, 2012). Lastly, ketamine has

been popular in the literature recently and may be effective in preventing suicide. Ketamine has been shown to reduce suicidal thoughts within hours, but there have not yet been studies on its effects of suicidal behavior (Ballard et al., 2014; Bolton et al., 2015; Griffiths et al., 2014).

In the jail environment discussing the aspect of utilizing psychotropic medications in order to control female inmates must be mentioned. Although the use of control through psychotropic medication is not rampant in the literature, there is discussion in the literature about psychotropic medication being used as a way to improperly control and sedate inmates rather than for psychiatric improvements (Zaitzow, 2010). Further, because jails are run by cities or counties and must work within a given budget, all psychotropic medications available in the community are not an option to women inside the jail setting. Regardless of whether mental health symptoms increase due to a real or perceived lack of effectiveness of a different medication, the impact is there. A prisoner involved in a focus group commented on this saying: "The doctor took me off my medication and put me on something different all together. So my mental health is worse. The medication he has me on don't work. I'm still depressed, anxiety, etc." (Harner & Riley, 2012). Therefore, although the use of psychotropic medication may be beneficial, it seems all avenues of intervention in the jail setting must be explored.

*2.8.5. Psychotherpy*

In a meta-analysis published by Cuijpers et al. (2013), the use of psychotherapy for depression was found to be insufficient in treating suicidality. Studies reviewed did not yield significant findings in the reduction of suicidality in depressed patients who were treated with psychotherapy. This review of 13 studies (n=616) further illustrates that perhaps treating depression or another presenting psychiatric disorder does not impact the suicidality as hoped.

Available treatment guidelines advise practitioners to use both pharmacotherapy and psychotherapy to treat depressive disorders in suicidal individuals (American Psychiatric Association, 2003). The assumption is that by reducing or eliminating the depressive symptoms, one will in fact be reducing or eliminating the suicidal ideation at the same time. However, this assumption is not supported by the literature. Although medications have been successful in treating certain psychiatric disorders, clinical trials often focus on a specific type of patient- i.e. those with bipolar disorder, or schizophrenia. Research does not conclusively illustrate that the use of pharmacology and psychotherapy is the "cure" for suicidal ideation and behaviors. In fact, there is more recent literature that suggests that practitioners must separate suicidal behaviors from other psychiatric symptoms (Cuijpers et al., 2013; Jobes, Wong, Conrad, Drozd, & Neal-Walden, 2005).

*2.8.6. Cognitive Behavior Therapy*

Cognitive Behavior Therapy for Suicide (CBT) specifically addresses the suicidality as part of treatment. CBT for suicide endeavors to identify thoughts and beliefs that were activated prior to a suicide attempt. Therefore, this technique is most often utilized with those who have survived a suicide attempt. Out of all of the prevention and intervention strategies reviewed, CBT is arguably the one with the most evidence-base. Although there is always a call for the use of more randomized controlled trials and the ones available often target a specific populations (i.e.- those with bipolar disorder, those with recent suicide attempts), CBT is represented in the literature when intervention strategies are discussed for suicidality.

In a randomized control trial of adults who engaged in CBT or care as usual, those who engaged in the CBT group were 50% less likely to reattempt suicide (n= 120); upon completion of treatment, 12 participants (24.1%) did reattempt (Brown et al., 2005). In a meta-analysis

conducted by Tarrier, Taylor, & Gooding (2008) the use of CBT was studied in terms of its effectiveness in reducing suicidal behavior. The authors found a significant effect for CBT in reducing suicidal behaviors in adults, but only for those undergoing individual therapy (not group) and for CBT when compared to minimal treatment or treatment as usual (not when compared to another active treatment). Similarly, Giowa-Kollisch et al. (2014) found a decrease in suicidal ideation for participants in a CBT based jail program when compared to an earlier group of residents before programming began. However, results were not significant when the group was compared to another group who were residing at the jail at the same time who chose not to participate.

Another study utilizing CBT with treatment as usual (TAU) found that at 9 months those who received CBT and TAU had significantly greater reductions in self-harm than those who received TAU alone (Slee, Garnefski, van der Leeden, Arensman, Spinhoven, 2008). Both groups had about 40 participants and all had recently engaged in deliberate acts of self-harm. Such a review leads one to conclude that perhaps we have not found the right treatment solution, and at the very least more research across the board must be conducted.

It is important to include a study by Stewart, Quinn, Plever, and Emmerson (2009) following 11 adults receiving CBT, 12 receiving PST, and 9 receiving treatment as usual (TAU). All of these adults were in treatment following a suicide attempt. The research found that CBT was the most effective for reducing suicide attempts. Speicifically, participants who received CBT made no suicide attempts during the study, whereas adults receiving PST and TAU made an average of 0.33 and 0.22 attempts respectively. Suicidal ideation decreased among adults receiving CBT and PST with CBT showing the most significant decrease.

*2.8.7. Dialectal Therapy*

Dialectical Behavior Therapy (DBT), which is classified as a cognitive behavioral treatment program, has also been developed to treat suicidal clients who meet criteria for borderline personality disorder (Lineham et al., 2006). An obvious drawback of this approach is its focus on individuals who also meet criteria for borderline personality disorder. More troubling however, when looking at the efficacy of the intervention, is research's inability to establish DBT as an effective intervention. Specifically, the research has been unable to attribute decreased suicidality to the elements of DBT (American Psychiatric Association, 2001; Lineham et al., 2006).

Adults with borderline personality disorder, two suicide attempts in the last 5 years, and one attempt in the last 3 months were treated using DBT (n=90). This group was compared to a similar sample (n=90) receiving general psychiatric care. In this study, there was no significant group difference found for suicidal episodes (McMain et al., 2009).

*3.6.8. Collaborative Assessment and Management of Suicidality (CAMS)*

CAMS was developed by Dr. David Jobes as a suicide-specific assessment and intervention tool. The unique aspect of CAMS is in fact, its focus on suicidal ideation or behavior as the central problem to address. CAMS is a suicide prevention-oriented approach that is both clinical and a philosophy for working with suicidal patients (Jobes, 2006). CAMS is both a collaborative and interactive approach to suicide assessment between clinician and patient. Unlike other clinical interventions, CAMS views suicidality as the primary focus of treatment instead of simply a symptom of a major psychiatric disorder (Jobes et al., 2005). The CAMS approach is built on the theoretical works of Shneidman (1993), Beck, Rush, Shaw and Emery (1979), and Baumeister (1990) to name a few and aligns with Interpersonal Theory of Suicide.

CAMS is a process that includes clinical assessment, treatment planning, and management of suicide risk. The process has three-stages and includes: an initial "Index" Assessment/Treatment Planning, Clinical Tracking, and Clinical Outcomes (Jobes, 2006). Jobes et al. (2005) found that outpatients receiving CAMS resolved their suicidality significantly more quickly than those receiving treatment as usual. Comtois et al. (2011) published about the effectiveness of CAMS and found that participants who received CAMS made fewer suicide attempts than those who received "enhanced care as usual" at 2, 4, and 6-month follow-up points, and reported reduced suicidal ideation- reaching an 89 percent reduction at 12 months.

# Chapter 3

# THEORETICAL UNDERPINNINGS

## 3.1 Introduction

With staggering statistics concerning the rise of female incarceration rates and the many risk factors for suicidal behavior present in both the jail environment and within the population itself, the females incarcerated in a county jail are worthy of examination. As previously noted, the purpose of the current research is to evaluate Resolana programming on women endorsing suicidal ideation. To aid in a deeper understanding of suicidal behaviors within this environment, this research will be guided using the Interpersonal Theory of Suicide and the Person-in-Environment (PIE) theory.

## 3.2 Suicide in the Jail Environment—Rationale for Theories Selected

Suicide continues to be the leading cause of death in local jails at the rate of 40 suicides per 100,000 jail inmates (U.S. Department of Justice, 2015). For females, suicide was the most common unnatural cause of death among female prisoners from 2001 to 2012 (U. S. Department of Justice, 2015). The rate of jail suicides has been held fairly constant since 2000 at the rate of 47 per 100,000 (Hanson, 2010; U.S. Department of Justice, 2005), higher than the suicide rate in the general population of 12.6 (McIntosh, & Drapeau, 2012).

Hayes (1995) suggested two major causes of suicide death in jail: jail environments are conducive to suicidal behavior and the inmates are facing a crisis situation. Specifically, there are a large number of inmates who suffer from mental illness or substance related disorders and have attempted suicide in the past (Cox & Morchauser, 1997; Goss et al., 2002; Hayes, 1999; Konrad et al., 2007). Furthermore, the very isolative environment of incarceration that leads to the loss of social supports and employment are factors cited that contribute to the number of suicide deaths within this population (Cox & Morchauser, 1997; Goss et al., 2002; Hayes, 1999; Konrad et al.,

2007; Mackenzie et al., 2003; Marzano et al., 2011). These citations point to the impact of the jail environment on inmates and lead to the inclusion of the Person-in Environment theory as part of this research.

Other common factors prior to inmate suicide attempts may include experiences with bullying, recent inmate-to-inmate conflicts, disciplinary infractions, or verdict or sentencing information (Konrad et al., 2007). Suicide risk is typically elevated during the first week in custody and in individuals with drug and alcohol problems, psychiatric disorders, suicidal thoughts, and long sentences (Fazel et al., 2008). Suicides typically occur by hanging, especially when individuals are held in isolation, and typically at night when staffing is at its lowest (Konrad et al., 2007). Ultimately, the feeling of hopelessness, a loss of future options, and narrowing of choices for coping are factors that may lead to suicide (Konrad et al., 2007). Cox and Morchauser (1997) succinctly summarize risk factors to suicide within this environment saying:

> …the overwhelming stressful impact of the jail environment. This stress is often observed as the initial shock of incarceration, anger or sadness over the ending of a supportive relationship, strong feelings of hopelessness regarding an individual's criminal justice status, anxiety connected with a court hearing or even emotional trauma following a physical assault. (p. 178)

These risk factors, which are also detailed extensively in the literature review, align well with the Interpersonal Theory of Suicide and point towards its inclusion and applicability in this research.

### 3.3 Why do people die by suicide?

Many theories have been proposed about why people die by suicide. Baumeister (1990) proposed that people who die by suicide are driven to such behavior as a way to escape their own perceptions of self-hate. According to the theory, an individual will develop an intense psychological need to escape when one's negative views of self simply become unbearable with which to live. According to Baumeister (1990) suicidal thinking begins when life events do not meet one's expectations. These failures are attributed internally, and a person becomes aware of the self's inadequacies. This self-awareness is a painful and negative process and the individual therefore desires to escape from this examination. Suicide can be seen as an ultimate step in the individual's effort to escape from both the self and the world. Utilizing structural analysis, Dean and Range (1999) tested this theory of suicide as a means of escape. Results strongly supported the escape theory of suicide mostly because of the expected relationships between depression, hopelessness, reasons for living, and suicidal ideation.

Another leading theorist with a similar "escape" element to his theory in the field of suicidology is Shneidman (1988). Shneidman proposed that psychological pain, or psychache, is specific to a particular person. According to the theory, all suicides occur when a person's individual threshold for psychological pain—psychache—is exceeded and the person chooses to die by suicide as a means of escape. In order to reduce suicide risk the only option is to find a way to decrease one's psychache or raise the individual's psychological pain threshold, which will increase the person's capacity to tolerate the psychache.

Psychache is one of three dimensions that constitute Shneidman's "Cubic Model of Suicide" (Shneidman, 1987). The second dimension is stress, or the feelings of being overwhelmed or under a tremendous amount of pressure. The third is agitation or the immediate desire to end the emotional pain. Each construct can be rated from low (1) to high (5) and

Shneidman (1987) proposed that each suicidal act occurs when maximum levels of psychological pain, stress, and agitation are present. According to this theory, interventions that target any construct will aid in moving a potentially high-risk suicidal patient into a less dangerous position (Shneidman, 1988).

Another essential term to discuss when exploring suicidal behavior is that of hopelessness, which is one of the leading risk factors for death by suicide (American Psychiatric Association, 2003; Dean & Range, 1999; Dixon, Heppner, & Rudd, 1994; Weishaar & Beck, 1992). Beck's concept of hopelessness refers to the expectation that one's situation will not get better regardless of what the person does to alter it. This construct is intimately linked to future thinking and points to a part of Beck's cognitive triad, which includes a sense of hopelessness about self, others, and the future. Beck's contribution concerning the role that thinking plays in psychological problems has undoubtedly assisted the field of suicidology (Jobes, 2006). In fact, no single construct has been more highly correlated with suicide than hopelessness (Goldsmith et al., 2002; Jobes, 2006; Maris, Berman, Silverman, & Bongar, 2000). All three of these leading theorists have undoubtedly contributed to the understanding of suicidal behavior and have served as part of the foundation on which the Interpersonal Theory of Suicide was built (Joiner, Van Orden, Witte, & Rudd, 2009).

## 3.4 Interpersonal Theory of Suicide

The Interpersonal Theory of Suicide (ITS) espouses a comprehensive and empirically defensible answer to the question of why people die by suicide (Joiner et al., 2009). The ITS helps to clarify previously unexplained aspects of death by suicide and to increase the understanding about the etiology of suicide (Van Orden et al., 2010). The foundation for this

theory stems from the assumption that people who die by suicide do so because they can and have the desire (Joiner et al., 2009; Van Orden et al., 2010).

The desire to die by suicide stems from the first two constructs associated with this theory: the presence of perceived burdensomeness and thwarted belongingness. These two constructs deal primarily with the presence or absence of social supports and the feeling of being a burden to others. The capability to takes one's own life is the third component of this theory. In other words, human nature's natural inclination toward self-preservation fades, but never disappears entirely, as the desire and capability of engaging in lethal behavior takes control (Joiner et al., 2009). For most humans, "…lethal self injury is associated with so much fear and/or pain that few people are capable of it" (Joiner et al., 2009, p. 4). A person engaging in suicidal behavior habituates to fear and pain most commonly through past self-injury (Joiner et al., 2009). Given this population under study, it is also important to note that habituation to the fear and pain can also come through past experiences of trauma, including abuse (Van Orden et al., 2010).

To summarize, there are three central concepts that must all be present for suicidal behavior to emerge. Two constructs are related to interpersonal relationships: thwarted belongingness and perceived burdensomeness; the remaining construct is related to capability and is termed the acquired capability for suicide. A detailed discussion of each construct follows.

*3.4.1. Thwarted Belongingness*

This construct is not a stable trait, but instead is a dynamic cognitive-affective state that changes over time (Van Orden et al., 2010). The theory proposes that an unmet "need to belong" (Baumeister & Leary, 1995, p. 1) is the specific interpersonal requirement that is involved in the desire for suicide. Although previous theoretical perspectives have discussed the importance of

social connectedness (e.g., Durkheim, 1897; Shneidman, 1985, 1987, 1998), the Interpersonal Theory of Suicide is the first one that has posited that this unmet need is central in the development of suicidal desire. Furthermore, this theory proposes that thwarted belongingness is a multidimensional concept that includes loneliness and the absence of reciprocally caring relationships (Van Orden et al., 2010).

Loneliness and the absence of reciprocally caring relationships are two constructs that have roots in the work of Baumeister and Leary (1995). Baumeister and Leary (1995) commented on the two constructs saying: "People seem to need frequent, affectively pleasant or positive interactions with the same individuals, and stable caring and concern" (p. 520). A sense of loneliness is conceptualized as a laden cognition that one does not have enough social connections. One experiencing this aspect of thwarted belongingness may say, "I feel disconnected from other people" (Van Orden et al., 2010, p. 582). This lack of social connectedness is evident in this population as inmates are separated from friends and family and may live for considerable amounts of time in isolation.

The second component of thwarted belongingness, the absence of reciprocally caring relationships, may be expressed through a statement such as: "There are no people I can turn to in times of need" (Van Orden et al., 2010, p. 582). Reciprocally caring relationships are ones in which individuals both feel cared for and display care of one another. Six observable risk factors for suicidal behaviors associated with a lack of reciprocally caring relationships include social withdrawal, low openness to experience, residing in a single jail cell, domestic violence, childhood abuse, and familial discord (Van Orden et al., 2010). These risk factors are evident when considering the inmate population, which is forced into social withdrawal, limited in the

availability of experiences, confined to jail cells and often victims of domestic violence and child abuse.

*3.4.2. Perceived Burdensomeness*

The second major construct of the Interpersonal Theory of Suicide, perceived burdensomeness, encompasses the feeling of being an extreme burden on others (Van Orden et al., 2010). This perception of being a burden on others specifically targets relationships with family members or close others and its presence is associated with the desire for suicide (Van Orden et al., 2010). The individual may believe that he or she is expendable, unwanted, or a burden on others (Van Orden et al., 2010). Similar to thwarted belongingness, the perceived burdensomeness component is thought to be a dynamic and dimensional variable. Therefore, perceived burdensomeness will vary over time, over relationships, and along a continuum of severity (Van Orden et al., 2010).

Like thwarted belongingness, perceived burdensomeness is made up of two components. Perceived burdensomeness includes both cognitions of beliefs that the self is so flawed that the person is a liability to others and self-hatred (Van Orden et al., 2010). A person may express the liability component with an expression such as: "I make things worse for the people in my life" (Van Orden et al., 2010, p. 583). The liability factor can be observed through six risk factors for lethal suicidal behavior, which include: distress caused by unemployment, incarceration, homelessness, and serious physical illness (Van Orden et al., 2010). The other two risk factors are direct statements in suicide notes or verbal communication when an individual expresses him or herself as expendable (Van Orden et al., 2010). The distress from residing in the jail environment away from family and responsibility, which may lead to this feeling of being a

liability, is consistent with statistics illustrating a higher rate of suicidal behavior and suicidal death in jail in comparison to the general population (Hayes, 1995).

The self-hatred component of this construct may be expressed by an individual saying: "I hate myself" or "I am useless" (Van Orden et al., 2010, p. 583). Three observable indicators of the self-hate component include low self-esteem, self-blame and shame, and the mental state of agitation (Van Orden et al., 2010). Again the literature presents evidence of all three of these risk factors being present within this population (Hayes, 1995).

A case example of perceived burdensomeness provides an excellent example of what a person may be feeling in this state. In a woman's suicide note to her ex-husband, she wrote: "[The girls] need two happy people, not a sick, mixed-up mother. There will be a little money to help with the extras—it had better go that way than for more pills and more doctor bills" (Shneidman, 1996, p. 94). This same woman also wrote a letter to her daughters saying: "Try to forgive me for what I've done—your father would be so much better for you. It will be harder for you for awhile—but so much easier in the long run—I'm getting you all mixed up" (Shneidman, 1996, p. 94). The burden that this woman felt is evident in these excerpts, and the self-hatred she felt is gleaned from her discussion about using money for her pills and doctor bills.

A study conducted by Filiberti et al. (2001) compared the suicide notes of cancer patients who made lethal versus non-lethal attempts. The presence of perceived burdensomeness in suicide notes differs between those whom died versus those who survived. The greater the perception of perceived burdensomeness: the more lethal means used in the suicidal behavior. This study serves as an example highlighting the power of this construct as a risk factor of suicidal behavior.

Van Orden, Lynam, Hollar, and Joiner (2006) studied the interaction of perceived burdensomeness and suicidal indicators. Participants included 343 adult outpatients of the Florida State University Psychology Clinic who completed the Beck Scale for Suicide Ideation, the Beck Depression Inventory, and items concerning perceived burdensomeness and hopelessness. Results illustrated that perceived burdensomeness was a predictor of suicide attempt status and of current suicidal ideation. Perceived burdensomeness remained a significant predictor of suicide indicators above and beyond the contribution of hopelessness.

Van Orden, Witte, Gordon, Bender, and Joiner (2008) conducted a study that examined the relationship between thwarted belongingness and perceived burdensomeness. The authors reported a significant linear relationship between self-reported thwarted belongingness and suicidal ideation among participants with high levels of reported perceived burdensomeness. Specifically, even participants with reported levels of thwarted belongingness in the 90$^{th}$ percentile did not endorse suicidal ideation without also endorsing high perceptions of burdensomeness. Although this study utilized a sample of undergraduate college students, it seems to point to the importance of this second construct.

*3.4.3. Acquired Capability of Suicide*

The final construct in the Interpersonal Theory of Suicide, acquired capability for suicide, entails that an individual must lose some of the fear associated with suicidal behaviors (Van Orden et al., 2010). Therefore, simply displaying suicidal desire, according to this theory, is not sufficient to die by suicide. A lowered fear of death, which is certainly uncommon to find in someone at birth, must be present. This component is based on and extends evolutionary models of fear and anxiety, which posit that humans are biologically prepared to fear suicide because suicidal behaviors are associated with threats to survival (Van Orden et al., 2010). Therefore,

according to the theory, one must acquire this capability for suicide and does so by developing an increased tolerance of physical pain and reducing the fear of death through repeated exposure to physically painful and/or fear-inducing experiences (Van Orden et al., 2010). Therefore, a person may engage in repeated acts of self-harm allowing for increasing levels of physical pain and fearful experiences ultimately leading to lethal means. It is important to add that being abused (IPV or childhood) and the violence in the jail environment can also add to acquired capability (Van Orden, 2010).

This acquired capability component is well-illustrated in a case study of Shneidman's (1996); this patient Beatrice wrote:

> I know now that slitting my wrists was not as poetic nor as easy as I imagined. Due to blood clotting and fainting, it is actually difficult to die from such wounds. The evening dragged on with me busy reopening the stubborn veins that insisted upon clotting up. I was patient and persistent, and cut away at myself for over an hour. The battle with my body to die was unexpected, and after waging a good fight, I passed out. (p. 4)

This excerpt may be difficult for some people to read likely due to an aversion of painful or fear invoking experiences. It serves as an excellent example of how one woman's fear and physical pain tolerance had been severely altered allowing her to withstand and continue with such an experience.

This habituation to physical pain is an important part of the acquired capability construct. The theory predicts that those with past suicide attempts will have accomplished this habituation and that their physical pain tolerance will be higher than that of others (Joiner et al., 2009). In support of this aspect of the theory, Orbach et al. (1996) showed that psychiatric inpatients who were administered electric shocks had a higher physical pain tolerance than similar patients with

no history of suicide attempts in an emergency room setting. Results illustrated that suicidal subjects endured the highest number of shocks and scored lowest on the appraisal of physical pain.

In another study completed by Van Orden, Witte, Gordon, Bender, and Joiner (2008), past suicide attempts significantly predicted self-reported acquired capability in a sample of psychotherapy outpatients. Those who had a history of multiple suicide attempts reported the highest level of acquired capability. Van Orden et al. (2008) presented results indicating that an index of perceived burdensomeness interacted with scores on an acquired capability scale to predict clinician ratings of suicide risk.

Although studies directly applying the Interpersonal Theory of Suicide to the presence or rate of suicide attempts and suicide deaths in the incarcerated population have not been conducted, such an examination is worthy. The constructs on which the theory is built have been replicated in the literature and have been substantiated within other populations. Further, the presence of several risk factors coincides with those present within the jail environment: specifically the sense of loneliness, lack of social support, and feelings of shame and being a burden on others. Furthermore, given the history of inmates' high rates of substance abuse, trauma, childhood abuse, domestic violence, and psychiatric disorders, one may hypothesize that for this environment a habituation to fear and physical pain may be present in many of these individuals. Examining this theory with this vulnerable population will contribute greatly to the literature base.

### 3.5 Person-in-Environment (PIE) Theoretical Perspective

The person-in-environment (PIE) System, a product of ecological systems theory, was initially developed by the social work profession to assess problems in social functioning. The

PIE System takes into account four factors that might contribute to the presence of suicidal ideation in jail inmates. These factors include social-role problems, environmental problems, mental disorders, and physical disorders (Ashford, LeCroy, & Lortie, 2006). The National Association of Social Workers commented on the PIE theory and said that social work focuses "attention to the environmental forces that create, contribute to, and address problems in living" (as cited in Boyle, Hull, Mather, Smith & Farley, 2009, p.5). Therefore, the social worker is able to see the individual within the context of the larger environment, in this case the prisoner in the jail, as an ecosystem (Boyle et al., 2009). Utilizing the PIE framework, social work researchers and practitioners can look at prisoners as a result of the interface with their surrounding jail environment (Boyle et al., 2009). The PIE theory is able to give equal concern to the individuality of people and to the social environments that influence their well-being (Coady & Lehmann, 2008).

This holistic perspective allows researchers and practitioners to consider all facets of an individual's life and how all things are interconnected. PIE has been criticized for placing the burden of change on the individual, instead of on an environmental or systematic change (Saleebey, 2004). It has also been criticized for providing a general perspective on the practice of the social work profession that would better be served by the professions' values. Another criticism of the theory is that it does not consider built or natural environmental effects (Saleebey, 2004). Despite these criticisms, PIE theory in this research context is useful in order to keep the jail's environmental impact on these inmates as a constant consideration.

The importance of considering the environmental impact of residing in a jail environment has been well documented in the literature (Bonner, 2006; Fazel et al., 2008; Fellner, 2006). Hayes (1995) listed the jail environment as one of two primary causes for jail suicide. Hayes

(1995) specified that from an inmate's perspective, a few unique factors about the jail's environment enhance suicidal behavior. These environmental considerations include fear of the unknown, distrust of the jail staff, lack of control over the future, isolation from family and significant others, shame of incarceration, and the dehumanizing aspects of incarceration. Haycock (1991) cited the jail environment as a cause of increased inmate distress, which may be a factor that leads to suicidal behavior. The specific jail environment of segregation or solitary confinement has been cited as a major risk factor for inmate suicide (Bonner, 2006). In fact, a leading recommendation in the literature about preventing inmate suicide surrounds environmental changes, such as making greater use of group-housing versus solitary jail cells, and limiting inmates' access to potential life-harming materials (Goss et al., 2002).

## 3.6 Conclusions

The Interpersonal Theory of Suicide and the Person-In-Environment perspective were chosen specifically due to the environment in which this evaluation took place. It has been well documented in the literature that many inmates experience both thwarted belongingness and perceived burdensomeness while incarcerated. The absence of social connectedness is evident in the literature both in terms of isolation from family, friends, and children (Daniel, 2006; Mackenzie et al., 2003; Marzano et al., 2011), and in the risk of interpersonal conflicts and bullying (Blaauw et al., 2001). Perceived burdensomeness is also present in the jail setting as women often feel guilt and shame over not being able to take care of their children, having to rely on others to provide them financial and emotional support (Douglas et al., 2009; Harner & Riley, 2012). Further, the guilt one feels about her own actions, which led to the incarceration also ties into this construct of perceived burdensomeness. The third construct, which is the acquired capability of suicide, also has applicability in the jail environment. Inmates are more

likely to have a history of trauma, including being victims of childhood abuse and/or adult domestic violence and assault. These traumas, according to the theory, serve as conditions in which one may acquire an increased tolerance for pain, thus acquiring the capability for suicide. Further, as stated previously, given the history of inmates' high rates of substance abuse, trauma, childhood abuse, domestic violence, and psychiatric disorders, one may hypothesize that for this environment a habituation to fear and physical pain may be present in many of these individuals. Given the very nature of how women in the criminal justice system often live—as addicts, homeless, untreated mental illness, prostitution, at-risk for assault—one can hypothesize that this very lifestyle involves trauma and fear-producing experiences that fit the acquired capability of suicide construct.

It is important to note that Resolana programming does not specifically focus on mental health, but has a significant component of social connectedness. The importance of building social connectedness is evident within the Interpersonal Theory of Suicide, specifically in the two constructs of perceived burdensomeness and thwarted belongingness. This theory therefore helps guide the connection between the importance of this social connectedness element of programming and decreases to risk for suicidal ideation, as well as mental health symptomology. Van Orden and colleagues (2010) comment on the importance of measuring mental health constructs saying: "…depression is likely associated with the development of desire for suicide, while other disorders, marked by agitation or impulse control deficits, are associated with increased likelihood of acting on suicidal thoughts" (p. 4).

As for the Person-In-Environment perspective, the jail environment is notably specific in terms of burdens and impacts on the inmate. In fact, the importance of considering the environmental impact of residing in a jail environment has been well documented in the

literature (Bonner, 2006; Fazel et al., 2008; Fellner, 2006). Hayes (1995) listed the jail environment as one of two primary causes for jail suicide, and the use of solitary confinement for those identified as suicidal has also been noted in the literature to have a tremendous impact on the individual (Bonner, 2006). The addition of social issues, as well as a high rate of both physical and mental health problems in the jail system, makes the Person-In-Environment perspective an appropriate choice in which to view this evaluation. In fact, Caplan and Van Harrison (1993) wrote about the usefulness of PIE in this programmatic context. Characteristics of both the person and the environment influence an array of responses including: overt behavior, mood, physiological reactions, and ultimately mental and physical health (Caplan & Van Harrison, 1993).

Although suicide interventions, like cognitive behavior therapy and dialectical behavior therapy have been illustrated to help effectively treat suicidal ideation, the jail environment is not conducive to these interventions. Inmates in the jail environment are typically not staying long enough for these interventions to be effective- the jail environment is largely about crisis intervention. These studies have been shown to be effective often with those afflicted with a specific mental illness- borderline personality disorder for example. Further, research of suicide interventions, regardless of which one, and its effectiveness in the jail environment is sparse at best. Therefore, the examination of this holistic perspective is worthy of examination and the theories presented will assist the researcher in interpreting results for this population.

# Chapter 4

# METHODOLOGY

## 4.1 Introduction

Chapter 4 provides an overview of the research methods for this study. The research sample came from the Resolana pod in Lew Sterrett Dallas County Jail and an overview of their programming will follow. Additionally, the chapter presents the research design including the sample, instrumentation, data collection methods and analyses, as well as a review of the validity and credibility of the research.

## 4.2 Purpose of the Research

The purpose of this research was to evaluate how Resolana programming impacted a woman's suicidality. This research will help practitioners know if holistic programming correlates with a decrease in suicidal thinking in the jail setting.

## 4.3 Setting

In 2009, Resolana was granted full-time access to Lew Sterrett Dallas County Jail and gained its own classroom space—the Resolana pod. In 2010, The Dallas County Probation officials initiated a collaboration that positioned Resolana's program as the "in-jail" component of a continuum of community services. On average, Resolana serves 400 women each year and provides 18 to 22 classes each week.

Resolana is committed to providing a broad range of programming that is sensitive to cultural, spiritual, and learning style differences. Programming is woman-centered, trauma sensitive and focuses on the core issues underlying addiction. Services are provided in the "Resolana pod", a dedicated area of the jail for Resolana services. In the pod, Resolana provides a physically and psychologically safe environment that contributes to positive outcomes for

participating women. This relational environment created by Resolana staff fosters growth, self-exploration, creative expression, and mutual cooperation. The creative and experiential activities that Resolana provides to these women foster self-esteem and build community. Women screened and moved into the Resolana pod participate in a series of programming including classes in seven key areas: mental health literacy, life skills, parenting, wellness, creativity, 12-step, and community resources (refer to Appendix A for full description of programming). In the words of Resolana staff:

> In our program, participants learn to support each other as they affirm their strengths, confront their addictions, work on breaking old destructive patterns, and witness what it means to be an accountable adult. They develop coping skills, build alternative behaviors and experience positive ways of relating to others and spending their time.

The broad programming goals of Resolana are as follows:

- To teach women healthy coping skills related to addiction and trauma
- To provide incarcerated women with opportunities for personal growth through self-awareness and creative self-expression
- To teach communication, problem solving and interpersonal skills to women
- To teach women practical life skills which foster self-sufficiency
- To support incarcerated mothers in building parenting skills
- To model positive social values and foster participation in community
- To connect women with resources for their return to their families and communities

Although there have not been specific recommendations given in terms of how to best intervene with incarcerated women whom are suicidal, there have been recommendations in the literature about how to best intervene with inmates whom are struggling with mental illness.

Many of these recommendations are met by the programming provided by Resolana. These recommendations that align with the Resolana program include:

- Gender specific screening and evaluation tools that can identify trauma and co-occuring disorders (Henriques, 2002).
- Mental health counseling that addresses the women's problems holistically. Research illustrates that mental illness, substance abuse, and trauma are "therapeutically linked" and should be treated as a unit (Bloom & Covington, 2008).
- Intense case managers to coordinate integrated services and resources (Desai. 2003).

Lewis (2006) studied incarcerated women and also concluded that a gender-specific intervention for women is essential. Lewis (2006) specifically recommended case management, treatment in therapeutic environments, an emphasis on abstinence from alcohol and drugs, and the development of skills to build healthy relationships. Resolana programming includes case management, AA, NA, and Al-Anon meetings, as well as healthy relationship, communication, and life skills classes. Although one may argue that the jail is the opposite of a "therapeutic environment", this sense of community is a core tenet of the Resolana program, and one that staff strives to meet as best as possible within the correctional system.

## 4.4 Participants

Women incarcerated at the Lew Sterrett Dallas County Jail enter the Resolana pod voluntarily. A Resolana staff member travels once a week to one of two general population towers in order to inform women about the presence of the Resolana pod and the programming provided. If women feel that Resolana will be beneficial, they can fill out a form to be

considered for transfer to "I pod". The forms first go to Jail Services who will deny entry of any woman that is currently being held on an aggravated offense, or one that has already been a participant in another "program pod" but was removed at their request or at the request of the program. The remaining women are moved into the pod as soon as room becomes available. Resolana receives a list of inmates that have been transferred to "I pod" every week, and a new roster is created each Monday.

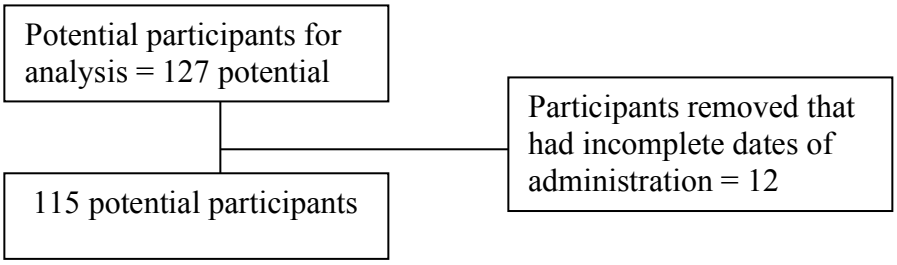
The majority of women housed in the Resolana pod struggle with substance abuse and have a history of trauma. Further, the majority of women who participate in Resolana programming are awaiting transfer to a treatment center as ordered by their judge. The transfer is typically to one of the following treatment facilities: a judicial treatment center (Wilmer, San Angelo), Nexus, or the Substance Abuse Felony Punishment (SAFP) program. Although the time between sentencing to a treatment center and transfer varies, the average holding time has historically been between 3 and 6 months. Some of the women are awaiting transfer to a state facility to serve out their sentence or will simply be released to go home. Regardless of the amount of time each woman is able to benefit from Resolana programming, it is the hope of the agency that the presence of all staff and programming will serve as a positive and educational experience in their journey to recovery and successful integration into society.

### 4.5 Sample

All women voluntarily requested to enter the Resolana pod and participate in day programming. All women in this study were adults over the age of 17 who speak or read English. As part of a program evaluation for Resolana, women were asked to fill out a packet of assessments weekly. These assessments included: the Patient Health Questionnaire-Somatic, Anxiety, and Depressive Symptoms Scale (PHQ-SADS), the Post-Traumatic Stress Disorder

Checklist-Civilian (PCL-C), and the Personal Progress Scale-Revised (PPS-R). Data collection for the purposes of this study began in in January of 2013 and concluded in September of 2014. During this time frame there were 875 women who agreed to participate in the study and signed an informed consent document before the administration of the first set of assessments. The choice to not participate in this research study in no way affected their eligibility for Resolana programming.

For inclusion in this study, potential participants must have received 2 administrations of the instruments, and those data collections must have been complete and free of any missing data. The following diagram displays the final sample analyzed.




The final sample was selected based on the pretest response to Question #9 in Section D on the depression subscale (PHQ-9) of the PHQ-SADS-, which assesses suicidality (see Appendix C). Both the sample with 127 women and the one with 115 women were utilized for this evaluation. Specific objectives looking at the time period women were exposed to programming were analyzed using 115 participants all of whom had complete data and dates of administration. The other objectives, which did not need length of stay to study, were analyzed using 127 participants, whom also had complete data, but had some element of the dates of administration missing.

## 4.6 Institutional Review Board

The Institutional Review Board (IRB) application was approved in December of 2012 at the University of Texas at Arlington. The IRB approval was granted by the full board and has been renewed each year (refer to Appendix B for letter).

## 4.7 Data Collection Procedures

The administration of all measurements took place in the Resolana pod in the dayroom. The dayroom is in the center of the Resolana pod and has circular tables and chairs that the women utilize for meals, programming, and free time. Behind the tables in a "U-shape" are all of the bunks, and in front of the tables is a platform where an officer sits and monitors the pod 24 hours a day. The officer on duty during the administration of the assessments does not contribute or participate in the process. All paperwork was administered and collected by the principal investigator, or another Resolana staff member whom also obtained IRB approval. Confidentiality of each participant's data was maintained. The researcher or other approved Resolana staff identified and approached participants whom endorsed suicide ideation. Their endorsement of suicidal ideation was discussed and their safety was determined. All Resolana program participants that endorsed suicidal ideation were also referred to jail mental health services for possible psychotropic intervention. Data collected through the surveys administered each week were kept in a locked closet in the locked classroom at Dallas County Jail Lew Sterrett Resolana Pod. Data was transferred to UT Arlington by the researcher and was housed at the School of Social Work in a locked file cabinet in the locked office of Dr. Regina Praetorius (Dissertation Chair) and were only accessible to Laura Frank, Paula Ude (a PhD student) and Dr. Praetorius. Electronic data are ONLY stored on encrypted devices to which only the researcher and Dr. Praetorius have access. Jail staff or court personnel did not have access to any of this data.

## 4.8 Instrumentation

Participants completed the Patient Health Questionnaire-Somatic, Anxiety and Depressive Symptoms Scale (PHQ-SADS) in order to assess the participants baseline mental health and whether they endorsed suicidality. The Post-Traumatic Stress Disorder Checklist-Civilian (PCL-C) was administered in order to assess baseline symptoms of Post-Traumatic Stress Disorder, and the Personal Progress Scale-Revised (PPS-R) was administered to determine the participant's baseline feeling of empowerment. All measures were administered weekly and the last administration was utilized as that participants' posttest to assess their progress.

### *4.8.1. The Patient Health Questionnaire-Somatic, Anxiety and Depressive Symptoms Scale (PHQ-SADS)*

As part of the program evaluation, each inmate completed the PHQ-SADS (refer to Appendix C). The PHQ-SADS was utilized in measuring the effectiveness of programming in improving the mental health of women endorsing suicidality. The PHQ-SADS is a 32-item self-report measure that assesses anxiety, somatic symptoms and depression. The PHQ-SADS generates a continuous score and provides a diagnostic guide with cut-off scores for each of the aspects assessed. In Section D, question 9 of the PHQ-9, which is a subscale of the PHQ-SADS specifically, asks the participant about their current state of suicidal ideation. This question was used in order to identify participants that were suicidal. Item D9 has specifically been studied to assess whether a higher score indicates suicidality and the conclusion was that a higher score on item D9 of the PHQ-9 indicates a greater likelihood that the participant is in fact suicidal (Walker et al., 2009). The subscale scores of both the pretest and posttest were examined in order to assess the effectiveness of programming. The impact of programming on participants

that did not endorse suicidality at the pretest was also examined utilizing the subscales of the PHQ-SADS in order to make comparisons between the two groups.

*4.8.2. Post-Traumatic Stress Disorder Checklist-Civilian (PCL-C)*

As part of the program evaluation, each inmate also completed out the PCL-C (refer to Appendix D). The PCL-C was utilized in measuring the effectiveness of programming in improving the mental health of women endorsing suicidality. The PCL-C is a 17-item self-report measure of the 17 DSM-IV symptoms of PTSD. It can be used to screen for PTSD. The PCL-C (civilian) asks about symptoms in relation to "stressful experiences." The symptoms that are identified by the respondent may not be specific to just one event, which can be helpful when assessing survivors who have symptoms resulting from a history of trauma. The PCL generates a continuous score and provides a diagnostic guide for further clinical assessment of PTSD. Again, the scores of both groups-those endorsing suicidal ideation at pretest and those that did not- were examined, and those scores were compared to those at posttest.

*4.8.3. Personal Progress Scale-Revised (PPS-R).*

The PPS-R (refer to Appendix E) was another measure given to the women weekly and was therefore utilized to further assess the impact of Resolana programming. The PPS-R is a 28-item self-report measure of empowerment in women. Items are rated on a 7-point scale from “almost never” to “almost always”. The PPS-R yields a continuous score that reflects overall empowerment (Johnson, Worell, & Chandler, 2008). Like the two previous scales, all of the participants’ sum scores at pretest and posttest were analyzed.

## 4.9 Threats to Internal and External Validity

*4.9.1. Internal Validity*

Given the utilization of standardized measures in this research study, an obvious threat to internal validity was measurement error. Measurement error contends that the instrument changes the participant and the responses elicited, thus potentially biasing the results (Drake & Jonson-Reid, 2008). Another real threat to internal validity was the lack of treatment fidelity. Though the administration and collection of the assessments is simple in theory and seemingly lacks the potential for differentiation, there is the possibility that details were administered with mistakes.

Maturation in terms of the growth and self-reflection participants gained from other aspects of programming was also a potential threat. Although each participant receives the same curriculum and class content, the instructors, days, and individuals in the group vary; therefore, consistency in the delivery each week is a threat to internal validity. It is nearly impossible to state that each participant received an identical intervention through class content as the next, and therefore must be a consideration when analyzing outcomes.

Attrition was also inevitable given the sample population. The researcher did not have control over the release or transfer of any one participant. Therefore, participants were sometimes inevitably removed from the Resolana pod before the "ideal" intervention was complete. Lastly, social desirability and expectation effects were threats to internal validity. Participants may have responded in a way they felt reflected positive thoughts from the researcher (Drake & Jonson-Reid, 2008). Similarly, expectations of both the participants and the researcher were threats to internal validity.

*4.9.2. External Validity*

Obvious limitations to generalizability were present in this study due to the sample population. The purpose of this study is to assess whether the intervention was a viable tool to

treat suicidality within the corrections setting. Therefore, the results of this study would be most applicable to correctional facilities or other controlled environments, such as inpatient hospitals or rehabilitation facilities. Other threats to external validity deal with the fact that all participants are female, and the majority were dealing with substance-related issues and/or trauma. Lastly, multiple treatment interference is a threat if a group had experienced more than one treatment because the results that are observed may be the cumulative effects of these multiple treatments rather than the results of the Resolana programming alone (Campbell & Stanley, 1963).

## 4.10 Data Analysis

### *4.10.1. Objectives*

The PHQ-SADS, PCL-C and the PPS-R were administered to all women in the Resolana pod weekly. Therefore these assessments were utilized to generate pre- and post-test scores. All women who endorsed suicidality on the PHQ-SADS were included in the final sample (n = 27). The researcher analyzed the impact of Resolana programming on a woman's suicidality, mental health symptomology, and feelings of empowerment. The impact of Resolana programming was measured using the first administration as pre-test and the final administration as post-test. The significance level was set *a priori* at the .05 level. This research project assessed the following objectives:

1. To assess the impact of programming on women endorsing suicidal ideation as measured by the PHQ-SADS. For this objective, paired t-tests will be run.

2. To assess the impact of programming on women's mental health (i.e., depression, anxiety, somatization and PTSS). For this objective, paired t-tests will be run.

3. To assess the impact of programming on women's empowerment. For this objective, paired t-tests will be run.

4. To assess the impact of length of programming on depression, anxiety, somatization, suicidal ideation as measured by the Patient Health Questionnaire (PHQ-SADS); post-traumatic stress as measured by the PCL-C; and empowerment as measured by the PPS-R. For this objective, Pearson's correlation will be used.

5. To identify a model for predicting suicidal ideation among females incarcerated in a jail setting. Multiple regression will be used for this objective.

# Chapter 5

# RESULTS

## 5.1 Objective Results

### *5.1.1. The Impact of Programming on Suicidal Ideation*

As stated in the first objective, paired t-tests were run to examine the impact of programming on women endorsing suicidal ideation on their pretest as measured by the PHQ-SADS. There were 27 women who endorsed suicidal ideation at pretest. The mean score at the pretest was 1.67 (SD = .17). The mean for the posttest was .30 (SD = .14). This change illustrated a significant change from pretest to posttest ($t_{26} = 6.2$, $p < .01$). Therefore, for this sample the programming did assist women in extinguishing suicidal ideation.

### *5.1.2. The Impact of Programming on Mental Health*

To assess the impact of programming on women's mental health (i.e., depression, anxiety, somatization and PTSD), paired t-tests were again utilized. For the group endorsing suicide at pretest, the mean score on the somatization subscale was 16.78 (SD = 5.92), and at posttest this score had decreased with a mean of 12.37 (SD = 1.50). These scores indicate a change from severe somatization symptomology to moderate at posttest. The paired t-test score of ($t_{26} = 2.71$, $p = .012$) shows a significant change for this group. The group not endorsing suicide at pretest also illustrated a decrease in somatization from pretest to posttest. The mean score at pretest on the somatization subscale was 10.67 (SD = 5.70) and at posttest this score was 8.44 (SD = 5.94). This group started with a moderate level of somatization symptomology and decreased to the mild category at posttest. The paired samples t-test yielded the result of ($t_{99} = 3.60$, $p < .01$, which again indicates a significant change.

Looking at the anxiety subscale the same trend follows. Both groups had a decrease in anxiety symptomology from pretest to posttest and the group endorsing suicide at pretest had a higher score at pretest than the group not endorsing suicide. The group with suicidal ideation had a pretest anxiety score of 15.26 (SD = 5.16) and a posttest score of 12.44 (SD = 1.06). Like somatization, this mental health symptomology went from the severe category to the moderate category at posttest. The paired samples t-test yielded the following result ($t_{26} = 2.55$, $p = .02$), which was significant. The non-suicidal group had a pretest anxiety score of 9.40 (SD = 6.35), which is in the mild category. At posttest this group had decreased to 7.80 (SD = 6.12), which is still in the mild category. The paired t-test for this group was significant and yielded the following result, ($t_{99} = 2.50$, $p = .01$), also a statistically significant decrease.

Lastly the scores on the depression subscale followed the trends seen on the other two subscales. At pretest, the group endorsing suicidal ideation had a mean depression score of 23.19 (SD = 1.36), which is above the cutout indicating severe depression. At the posttest, the mean score was 14.70 (SD = 1.39). This decrease is large and places this group in the moderate depression category, which is just below the cutoff of 15 for severe depression. The paired t-test also yielded a significant change for this group ($t_{26} = 5.13$, $p < .01$). For the group not endorsing suicide, the depression score at pretest was 13.18 (SD = 7.98) and at posttest had declined to a mean score of 10.80 (SD = 8.14). This group started in the moderate category for depression and although there was a decrease in the score, they did remain in the moderate category. The paired samples t-test for this group again yielded a significant result ($t_{99} = 3.16$, $p < .01$).

*5.1.3. The impact of programming utilizing the Post-Traumatic Stress Disorder Checklist-Civilian (PCL-C)*

PTSD scores for the group exhibiting suicidality, as measured by the PCL-C, were 56.30 (SD = 17.41) at pretest and 46.82 (SD = 17.71) at posttest. There was a significant decrease in PTSD symptomology from pretest to posttest ($t_{26} = 2.54$, $p = .02$). Both scores were above the cutoff score of 30, which indicates the need for a mental health referral to clinical assessment for PTSD.

For the group not endorsing suicide the mean at pretest was 40.92 (SD = 16.67) and 38.51 at posttest (SD = 16.73). Again both of these scores are above the cutoff of 30 indicating the need for a mental health referral to assess for PTSD. Although again there was a decrease from pretest to posttest, this change was not significant ($t_{99} = 1.35$, $p = .18$).

*5.1.4. The Impact of Programming on the Personal Progress Scale-Revised (PPS-R)*

The final paired samples t-test was utilized to examine women's empowerment scores from pre- to posttest. The mean score on the PPS-R for the suicidal group at pretest was 117.56 (SD = 18.36); at posttest this score was 124.15 (SD = 19.61). There was an increase in feelings of empowerment from pretest to posttest, but these findings were not significant ($t_{26} = -1.87$, $p = .07$). Scores for the group that was not suicidal were as follows: at pretest the mean empowerment score was 117.23 (SD = 13.59); at posttest the score was 118.84 (SD = 12.70). Just like the group exhibiting suicidality, this change was not significant ($t_{99} = -.95$, $p = .34$).

*5.1.5. Length of Programming and Changes in Mental Health Symptomology*

It is reasonable to think that longer exposure to the program will yield greater decreases in mental health symptomology and an increase in empowerment scores. Therefore, this relationship was studied using the sample with complete data, including dates for both the pretest and posttest administrations (n = 115). For this objective, Pearson's correlation was used. The average number of days of programming for this sample was 43.96 (SD = 63.92). There was not

a significant correlation between any of the mental health variables and the number of days in programming at the .05 level. If one were to allow for the .10 level to indicate significance—typical for exploratory studies (Black, 1999), there would be significance for the change in somatization, and empowerment scores. A full table of results is below.

Table 5-1 Pearson's Correlations

| Measure | r Value | P Value |
|---|---|---|
| PHQ-15 | .16 | .08 |
| GAD-7 | .09 | .37 |
| PHQ-9 | .09 | .33 |
| PCL-C | .13 | .17 |
| PPS-R | -.16 | .08 |

*5.1.6. Prediction of Suicidal Ideation*

In order to run a linear regression, a series of assumptions must be met. These include: linearity, multivariate normality, no or little multicollinearity, no auto-correlation, and homoscedasticity. Before discussing the results of the regression, the assumptions of regression will first be addressed.

The first assumption, the presence of a linear relationship between the independent and dependent variable, must be fulfilled for a relationship to be accurately predicted. Researchers have proposed several means for detecting if a linear relationship is present. One of these is utilizing previous theory and/or research to inform the current analysis (Berry & Feldman, 1985; Cohen & Cohen, 1983; Pedhauzur, 1997). For this research, the presence of a linear relationship

is met due to the evidence that reducing mental health symptoms should reduce suicidality (e.g., Daniel, 2006; Marzano et al., 2011).

The second assumption is multivariate normality, or that each variable has data that approaches a normal distribution. Each of the distributions was positively skewed. Taking the standard error of each of the kurtosis statistics and multiplying by 2 constructs the respective ranges of normality. Table 5-2 below summarizes the values for skewness, kurtosis, standard errors of kurtosis and ranges of normality on all variables. The distributions approach normality with the exceptions of the GAD-7 and PPS-R pre and post-tests. However, multiple regression is considered robust to this violation (Osborne & Waters, 2002).

Table 5-2 Skewness and Kurtosis

| Measure | Skewness | Kurtosis | S. E. of Kurtosis | Range of Normality |
|---|---|---|---|---|
| PHQ-15 Pretest | .48 | .34 | .45 | -.90 to .90 |
| GAD-7 Pretest | .15 | -1.17 | .45 | -.90 to .90 |
| PHQ-9 Pretest | .05 | -1.0 | .45 | -.90 to .90 |
| PCL-C Pretest | .21 | -.94 | .45 | -.90 to .90 |
| PPS- R Pretest | .48 | 5.04 | .45 | -.90 to .90 |
| PHQ-15 Postest | .68 | .29 | .45 | -.90 to .90 |
| GAD- 7 Posttest | .34 | -1.04 | .45 | -.90 to .90 |
| PHQ-9 Posttest | .38 | -.58 | .45 | -.90 to .90 |
| PCL-C Posttest | .44 | -.69 | .45 | -.90 to .90 |
| PPS-R Posttest | 1.21 | 1.7 | .45 | -.90 to .90 |

The third assumption deals with multicollinearity. Multicollinearity occurs when the independent variables are not independent from each other. For a linear regression there must be little or no multicollinearity. The presence of multicollinearity was tested using the tolerance value, which measures the influence of one independent variable on all other independent variables. All tolerance values were greater than 0.1, which fulfills the assumption of little or no multicollinearity. The Variance Inflation Factor (VIF) Value can also inform the presence of multicollinearity. If the VIF value is greater than 5 then one should investigate further for the presence of multicollinearity. Table 5-3 reports all tolerance and VIF values.

Table 5-3 Multicollinearity

| Measure | Tolerance | VIF |
|---|---|---|
| PHQ-15 Pretest | .45 | 2.20 |
| GAD-7 Pretest | .29 | 3.42 |
| PHQ-9 Pretest | .22 | 4.52 |
| PHQ-9 S.I. Question Pretest | .67 | 1.50 |
| PCL-C Pretest | .34 | 2.95 |
| PPS- R Pretest | .82 | 1.22 |
| PHQ-15 Posttest | .33 | 3.08 |
| GAD- 7 Posttest | .23 | 4.34 |
| PHQ-9 Posttest | .25 | 3.97 |
| PCL-C Posttest | .30 | 3.30 |
| PPS-R Posttest | .83 | 1.21 |
| Number of Days in Program | .94 | 1.07 |

As the data illustrates, all tolerance values are greater than .1 and all VIF values are under 5 which indicates that the assumption of little or no collinearity is met.

Autocorrelation is the next assumption examined. Autocorrelation occurs when the residuals are not independent from each other. The Durbin-Watson test can be used to test for the presence of autocorrelation and values between 1.5 and 2.5 show that there is no auto-correlation in the data. The data utilized in this research fulfilled this assumption as well with a Durbin-Watson score of 2.18.

Finally, the last assumption is homoscedasticity. The data in this analysis were heteroscedastic. However, heteroscedasticity has been found to have minimal impact (Berry & Feldman, 1985; Tabachnick & Fidell, 1996). Additionally, others have said the regression test is robust and can handle such violations (Erceg-Hurn & Mirosevich, 2008; Keith, 2006).

This objective sought a model to predict the presence of suicidal ideation based on the presence of selected mental health symptomology including depression, somatization, anxiety, and/or PTSD, or a lack of empowerment. All mental health variables for this objective were selected based off the link between the presence of mental health symptomology and being at risk for suicidal behavior (Daniel, 2006; Daniel & Fleming, 2005; Goss et al., 2002). The inclusion of an empowerment measure was chosen with the idea that the presence of empowerment may serve as a protective factor. Within this objective there were two specific models examined.

The first regression conducted began with all of the variables mentioned as a potential model to predict the presence of suicidal ideation at posttest. The first model contained the scores at pretest and posttest for somatization, anxiety, depression, PTSD, empowerment, and the number of days in programming; the variable of suicidal ideation at pretest was also a part of this

model. The ANOVA with all twelve predictors was statistically significant ($F_{(12)} = 4.73$, $p < .01$). Upon removal of the predictor with the highest probability value, the PHQ-15 score at posttest (somatization), the ANOVA was not statistically significant and the variable was added back into the model. The model had an adjusted R square value of .28, predicting 28% of suicidal ideation at posttest.

The objective of the second regression was to find a model to predict the presence of suicidal ideation at pretest. The five pretest variables were included in the original model tested for this objective; specifically, these included pretest scores for somatization, anxiety, depression, PTSD, and empowerment. This original model was statistically significant ($F_{(5)} = 5.74$, $p < .01$). The highest probability value identified for a predictor was the GAD-7 score ($p = .85$), which was excluded, and this model was still found to have the same R square value and was statistically significant. There were not any other changes that could be made to this model without losing the R square value and the significance. Therefore, for the model to predict suicidal ideation at pretest the model contained the variables somatization, depression, PTSD, and empowerment. The final model had an adjusted R square model of .17, which predicts 17% of suicidal ideation at pre-test. See table 5-4 for the summary of hierarchical regression analysis for both models.

Table 5-4 Summary of Hierarchical Regression Analysis for Variables Predicting the Presence of Suicidal Ideation at Posttest (N=127)

| Variable | *B* | *SE B* | *β* |
|---|---|---|---|
| PHQ-15 Pre | -.009 | .012 | -.093 |
| GAD-7 Pre | .020 | .014 | .216 |
| PHQ-9 Pre | -.025 | .013 | -.348* |
| PHQ S.I. Pre | .114 | .080 | .138 |
| PCL-C Pre | .009 | .005 | .243 |
| PPS-R Pre | -.004 | .004 | -.096 |
| PHQ-15 Post | -.008 | .013 | -.091 |
| GAD-7 Post | -.016 | .017 | -.170 |
| PHQ-9 Post | .067 | .013 | .865* |
| PCL-C Post | -.010 | .005 | -.276 |
| PPS-R Post | .008 | .004 | .203* |
| # of days in programming | -.001 | .001 | -.099 |
| $R^2$ | | .540 | |
| *F* for change in $R^2$ | | 4.73 | |

*p < .05

Table 5-5 Summary of Hierarchical Regression Analysis for Variables Predicting the Presence of Suicidal Ideation at Pretest (N=127)

| | | Model One | | | Model Two | |
|---|---|---|---|---|---|---|
| Variable | *B* | *SE B* | *β* | *B* | *SE B* | *β* |
| PHQ-15 Pre | .009 | .013 | .078 | .010 | .013 | .081 |
| GAD-7 Pre | .003 | .017 | .029 | | | |
| PHQ-9 Pre | .035 | .015 | .402* | .037 | .012 | .420* |
| PCL-C Pre | -.001 | .006 | -.034 | -.001 | .005 | -.028 |
| PPS-Pre | .001 | .005 | .024 | .001 | .005 | .024 |
| $R^2$ | | .70 | | | | |
| $F$ for change in $R^2$ | | 5.74 | | | | |

*p < .05

# Chapter 6

# DISCUSSION

## 6.1 Introduction

The results from this sample provide some valuable findings for clinicians, researchers, and those within the corrections system. This chapter will discuss the results and provide analysis in terms of their limitations. The limitations of this study, as well as the practice and research implications will also be reviewed.

## 6.2 Analysis of Results

There are several general considerations when examining these results. Although Resolana provided a standardized program, the exposure to programming was different for each woman. Women were called out of the pod at various times throughout their time in the program for visitation, healthcare appointments, and court. Further, not all of these women were in the Resolana pod for the same period of time and therefore some were exposed to more elements of programming than others. Also, it is important to acknowledge that at least some of this sample was under the care of psychotropic medication at the same time of exposure to programming.

There has been considerable discussion throughout this dissertation about the impact of the jail environment, particularly the use of solitary confinement. It is important to remember that the women in this sample were not in solitary confinement. In fact, the women were in an open pod with cots and a community sitting area in the center of the pod. This setting served a purpose in terms of creating a therapeutic environment, of course within the context of a county jail. The desire to stay in this building of the jail, and avoid being transferred to the mental health unit, also impacted women's willingness to be completely transparent while filling out the surveys, despite being reminded about the confidentiality around the data and its limits weekly.

Women were not always comfortable endorsing any or all symptomology of mental health disorders. For some there was a real fear of being transferred out of the pod to the mental health unit, or having to interact with mental health staff as a result of endorsing mental health symptoms. Therefore, there may in fact be an underrepresentation of mental health symptomology in this sample. And perhaps by the end of the intervention, women had gained the trust with the program and with staff to endorse more mental health symptomology at the posttest, thus altering the true decrease from pretest to posttest.

Another important consideration is the fact that women are charged a fee to see the mental health staff (Harner & Riley, 2012). In order for women to see mental health staff in U.S. jails and prisons, a fee is taken off their "books," which they also use to purchase food, personal items, stamps, etc. The women in our program were able to participate in a day program, which provided psycho-educational and therapeutic intervention to help. However, this group is only a small part of the women housed in the Dallas County jail and if women are deterred from seeking mental health intervention through the jail system (i.e., psychotropic medication) and are not in a program like Resolana, what is the impact on their mental health? One can assume that the impact is detrimental given what we know about the impact of the environment itself.

*6.2.1. Resolana Programming and Suicidal Ideation*

Results did indicate that Resolana programming positively impacted suicidal ideation in the small sample of women endorsing suicidal ideation at pretest. These women had a significant decline in suicidal ideation, although it was not completely extinguished. Given that the intervention was both brief and in the context of a county jail, the significant decrease in suicidal ideation from pretest to posttest is noteworthy and at the very least should inform the

corrections system about the potential impact of this holistic, gender-sensitive programming on suicidal ideation.

This decrease in suicidal ideation is especially pertinent as it relates to the jail environment. It is well documented in the literature that the first days of incarceration are especially risky for suicidal behavior (Daniel, 2006; Hayes, 1989; Lester & Danto, 1993; Marcus & Alcabes, 1993; Pompili et al., 2009). If one considers this change in the context of a brief intervention and in a jail environment, these results are worthy of consideration. Although it is impossible for the researcher to know if the sample included women whom had just entered the jail and then been transferred to the Resolana pod (and therefore at high risk during their first 24-48 hours in jail), the implications of such a trend for high risk inmates is worthy of further investigation.

The decrease in suicidal ideation and the presence of programming that addresses the three necessary constructs in ITS for suicidal behavior to occur is also worthy of notation. The Resolana program was founded on its ability to have "women support women" and this relational community within the jail setting addresses two of the three constructs in ITS: thwarted belongingness and perceived burdensomeness. The presence of curriculum and case management services for women to begin to deal with and confront issues of previous trauma speaks to the third construct, the acquired capability. Until one begins to uncover and heal from previous trauma, including past attempts, abuse, separation from children and family, etc. one cannot begin to lower this threshold. Therefore, the significant decrease in suicidal ideation from this group and the program's ability to address the ITS constructs, points to the usefulness of including this theory as a guiding one. Further examination is imperative, but this pilot study supported the clinical importance of using ITS within this context.

*6.2.2. Analysis of the Patient Health Questionnaire-Somatic, Anxiety and Depressive Symptoms Scale (PHQ-SADS) Results*

As expected, women in the group endorsing suicide had higher somatization, anxiety, depression, and posttraumatic stress disorder scores than the women in the group not endorsing suicide. It is promising that although not all of the decreases from pretest to posttest were significant, all scores did in fact decrease. Simply examining the mental health symptomology, the women endorsing suicidal ideation at pretest had significant decreases from pre- to posttest on all scales. Although the sample was small (n = 27), this group had significant decreases in somatization, anxiety, and depression from pretest to posttest. These findings support the presence of a mental health diagnosis in those at-risk of suicidal ideation and behavior. Just as the mental health symptomology significantly decreased for this group, so did the actual presence of suicidal ideation from pre- to posttest.

Given that the women not endorsing suicidal ideation at pretest also had significant decreases on somatization, anxiety, and depression scores, the specific elements of programming and how that correlates to decreases in mental health symptomology should be the focus of future research. Further, the point at which suicidal ideation begins to decrease during programming should also be a consideration for future research. Both studies would assist in identifying elements of programming that must be present to positively impact women with mental health disorders in a jail setting.

*6.2.3. Analysis of the Post-Traumatic Stress Disorder Checklist-Civilian (PCL-C) Results*

Scores on the PCL-C only yielded a significant change from pretest to posttest for the group endorsing suicide at pretest. The change for the group endorsing suicide was almost 10 points, although one must consider the sample size and the impact of extraneous variables. The

change for the group not endorsing suicide was just over two points. More drastic changes in terms of PTSD symptomology was not expected. Resolana programming is about crisis intervention and to introduce psychoeducational material in a therapeutic setting. One cannot expect that such an introduction and sometimes extremely brief (14 days) intervention would significantly deal with and heal severe symptomology of trauma. However, the decrease that is evident in both groups does point to a beginning for these women in terms of confronting and working through their own experiences of trauma and its aftermath.

The fact that the only non-significant change across groups for all mental health symptomology assessed in this research is for PTSD for women not endorsing suicide at pretest is significant. Replication of this research with more focus on the impact of specific elements of programming and their impact on the individual mental health variables measured is recommended.

*6.2.4. Analysis of the Personal Progress Scale-Revised (PPS-R)*

Finally, the scores on the PPS-R reflected very little change, indicating little change in feelings of empowerment from pre- to posttest. It is important to note that for both groups mean pretest scores were over one hundred, which indicates the presence of empowerment at the beginning of programming. It is interesting that both groups had nearly the same mean score on the pretest of the PPS-R (suicide group- 117.56, non-suicide group- 117.23). Similar to the PCL-C score change, little movement on empowerment scores from pretest to posttest is not surprising. In fact, from a clinical perspective, a small change in this score is logical given the brevity of the intervention. The majority of these women entered the jail, and the Resolana program, with a series of obstacles including addiction, trauma, untreated mental health disorders, strained relationships, involvement with Child Protective Services, and legal issues.

One would expect these women to first completely detox and be clear and present enough to begin the examination of these elements piece by piece. As an observer, women would often enter the program energetic and motivated. However, after some exposure to programming and entering the depth of their own reflection and need for change, some of that certainty would diminish. The reality of the difficult journey ahead became evident. The average intervention time was not long enough for women to celebrate small victories with the result being a renewed increase in belief of self. Hopefully what the Resolana program did was begin that journey for at least some of them and at other treatment centers that journey was able to continue. If measured again after a longer intervention period, the increase on this scale may at that point be statistically significant.

6.2.5. *Length of Programming and Changes in Mental Health Symptomology*

This study did not yield any significant correlations between length of programming and decreased mental health symptomology. It is still reasonable to believe that increased exposure to programming results in decreases in mental health symptomology; for example, Praetorius, Nordberg, Frank Terry and Ude found that length of programming did have a statistically significant inverse relationship with mental health symptomology in a larger sample of female jail inmates. The lack of a significant correlation in this research could be the result of a small sample size and/or the brief intervention period. Further research examining this correlation should extend into the next phase of programming as the majority of these women were awaiting transfer to a treatment facility of some kind. The fact that the most significant correlations were for somatization and empowerment ($p < .10$) is surprising. Replication and refinement of this objective should be the focus of future research in order to understand if there is a significance here that is important for clinicians to consider.

*6.2.6. Analysis of Predictors of Suicide*

Two models were examined in terms of how to predict the presence of suicidal ideation. The first regression looked at the impact of symptomology from pretest through posttest and its impact on the presence of suicidal ideation at posttest. All variables were important for inclusion in the model and explained 28% of the variability. Although it is informative that depression, anxiety, somatization, suicidal ideation PTSD, and empowerment were important elements of the model, the adjusted R square value of .28 is also indicative of missing variables that need inclusion.

The second regression examined a model to predict the presence of suicidal ideation at pretest. This final model included depression, somatization, PTSD, and empowerment. The exclusion of anxiety is informative and is worthy of further examination. Like the first regression, although this information is sparse in the literature and is indeed informative and a good place to start, there needs to be more focused research in this area of clinical knowledge. The final model only explained 17% of the variability, which again points to the need to further investigate variables worthy of inclusion. One possibility for inclusion in the model is social support, as the Interpersonal Theory of Suicide relies heavily on the presence of thwarted belongingness and perceived burdensomeness to loved ones in order for suicide risk to be present. Other possible items to investigate, all supported in the literature are: placement within the jail, the criminal case itself, interpersonal relationship in the jail, and the history of past suicide attempts.

## 6.3 Limitations

The most obvious limitation in this study is that of the sample size. Although many women took part in this year-long program evaluation, the number of women with complete data

significantly impacted the overall sample size. After the women whom endorsed suicidal ideation at the pretest were selected, the sample size for this group was limited at only 27. As stated previously, one possible explanation of this sample size is the fear of being transferred out of the Resolana pod to the mental health tower._Although imputation is often used in the social sciences to account for missing data, this option was not considered ethical by the researcher nor her supervising dissertation committee. Given that women in a vulnerable position in a stressful environment were asked about mental health symptomology and specifically suicide, it did not appear ethical to impute answers to such variables in order to handle missing data. Therefore, only the data available that was complete was utilized in this analysis. Although this data was limited in sample size it did yield results that are informative to the corrections setting, as well as the mental health sector that serves this population.

Another obvious limitation of this study is the absence of demographic data. The researcher was unable to obtain demographic data from the agency or the corrections system due to concern over protecting the identities of the women. This study also lacks a comparison group of others within the county jail not participating in programming, which is an important limitation to note for future endeavors. Lastly, a measure about social support would have added value to the study given the significance of this element from both the perspective of a risk factor, as well as from a theoretical perspective.

Future research should be concentrated in evaluating programs within the United States corrections system in order to determine their impact on suicidal ideation and mental health symptomology. Research should focus on specific elements of programming and their specific impact on the mental health variables tested here, as well as others recommended in this chapter. This area of investigation represents a large gap in the literature. There is much known about the

risk factors of suicide, but there is still so much to learn about the effective interventions for those with suicidal ideation, as well as how different interventions impact specific risk factors for suicidal ideation, and the suicide ideation itself. With the addition of the jail setting, the literature is sparse at best, and in reality the presence of programming in United States jails is not common practice. Given the statistics about the number of women in the corrections system, learning about effective interventions and then using this evidence to implement programming throughout the country is needed.

## 6.4 Implications

Results from this study clearly illustrate that exposure to this woman-centered, trauma sensitive, community building, and holistic program impacted the women in the pod. Despite the limitations of a small sample size and the often-short intervention period, decreases in somatization, anxiety, depression, and PTSD symptomology were seen across groups. Given that the nation's jails and prisons have become the frontline for those with acute and chronic mental illness, these findings are important for both the mental health field and the corrections system to consider.

The war on drugs, deinstitutionalization, and the lack of funding for community mental health services have left many in the United States without proper mental healthcare (e.g., Dalley, 2014; Kuehn, 2014; Torrey, Kennard, Enslinger, Lamb, & Ravle, 2011; Zaitzow, 2010). As a result, United States jails and prisons have become the forefront of mental health care for an underserved and marginalized population (Green et al., 2005; Human Rights Watch, 2003; Suto & Arnaut, 2010). In fact, prisoners with mental illness are more than three times more likely to be in United States jails or prisons than in the nation's mental health hospitals (Torrey et al., 2011).

Deinstitutionalization originally came about because housing the mentally ill within state hospitals was seen as inhumane and it was concluded that outpatient services should be available. It can be argued that housing the mentally ill in the nation's jails and prisons takes the country back to the days of the "poor houses," which was deemed inhumane. When one considers the lack of affordable housing, the difficulty in receiving services at local social service agencies, and the limited number of supported employment programs, this population seems especially vulnerable (Immarigeon, 2011). Without proper mental healthcare for this population in the community, a possible response is utilizing the research to improve the services within the corrections system.

In fact, according to the U.S. Constitution, correctional facilities are legally obligated to meet the healthcare needs of the people they house (Marks & Turner, 2014). The Supreme Court ruled in the 1976 decision *Estelle v. Gamble*, that failure to provide such healthcare violates the Eighth Amendment, which prohibits the federal government from using cruel and unusual punishment. Further, according to the ruling, jails must provide care that meets the "evolving standards of health care in the general community" (Wright, 2008, p. 31). This lack of parity in the corrections setting is a topic that has been thoroughly discussed in the literature.

*6.4.1. Implications for United States Jails*

There will be impacts on jail health care programs as a result of both policy and funding considerations, as well as recommendations put forth from research endeavors. A discussion of jails specifically is important, as they are markedly different than the nation's prisons. In the United States, jails typically have less funding, have fewer trained staff, and have inmates that are serving shorter sentences than prisons (Dalley, 2014). Funding for jails primarily comes from local county or city entities and do not receive a consistent flow of state and federal

funding. Therefore, jails do not have the funding for resources, staff, and training that prisons do, and when there are budget cuts, the typical response is to decrease funding to inmate programming (Kubiak, Beeble, & Bybee, 2009).

The Affordable Care Act is one example of how policy implications will impact jail mental health intervention. A new study estimates that approximately one-fifth of all new enrollees within the Medicaid expansion group will be jail involved (Steadman, Osher, Robbins, Case, & Samuel, 2009). The expansion of Medicaid eligibility also establishes parity for treatment of mental health and substance use disorders (Marks & Turner, 2014).

In fact, if one views jails as the venue to provide adequate healthcare to the nation's underserved population, it can be argued that they can help not only improve the health of the individuals, but improve communities and perhaps assist in reducing crime (Marks & Turner, 2014). The inmates in local jails are viewed as both a "public health and a public safety issue" (Marks & Turner, 2014, p. 445). Therefore utilizing research to improve healthcare and provide evidence-based programming is paramount.

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# Appendix A

## Description of Resolana Programming

Resolana programming includes the following required elements: Core Intensive program (2 weeks), Seeking Safety, Life Skills, Alcoholics Anonymous/Al-Anon, Creativity Classes, Yoga, and Community Meetings. Women begin with the Core Intensive Program for the first 2 weeks. Thereafter, they attend each of the other required components weekly for the remainder of their stay in the Resolana pod. Women are also eligible to participate in case management services offered 1-2 times weekly, and various open call classes. As case management and open call classes are not a part of the required curriculum, they will not be a part of this evaluation. If women have 3 unexcused absences during a one-month period they are released from the program and are transferred back to general population. Because Resolana must adhere to jail protocols regarding class size, women begin programming with the Core Intensive 2-week program in the "pink group." After completing this, women are randomly assigned to the "yellow group" or the "blue group." Both the yellow and blue groups receive all of the same required classes subsequent to Core Intensive but on different days and times of the week to maintain the specified class size.

**Core Intensive.** This is a 2-week strengths-based introduction to the issues and topics that are explored during full programming. All women entering the Resolana pod are required to participate. The first week provides education about emotional management or emotional regulation; the curriculum comes from Houses of Healing: A Prisoner's Guide to Inner Power and Freedom (Casarjian, 1995). The second week's topic is healthy communication and the curriculum is based on information from the Institute of Behavioral Research (2004). The core intensive classes are facilitated by Resolana's social worker, Twilah Winters, who is often assisted by a volunteer or MSW intern.

The purpose of emotional management is for one to precisely identify and communicate feelings. Everyone has emotional needs and they can only be filled if one knows what they are. One must also be able to communicate feelings in order to get the emotional support and understanding needed from others, as well as to show emotional support and understanding to others. The core intensive classes assist the women in beginning the journey to healthy emotional management and healthy communication. A voiced goal of the social worker presenting the material is that the women take the information and handouts with them into the pod so that they may utilize this material during their quest for rehabilitation and future programming both within and outside of the pod. Simply, this curriculum is to serve as a foundation on which women can build in the long and difficult process of recovery. All classes in the discussion that follows are required of women upon completion of the Core Intensive Curriculum.

**Seeking Safety.** The Seeking Safety curriculum is grounded in cognitive-behavioral therapy for the dual diagnosis of posttraumatic stress disorder (PTSD) and substance abuse. The Seeking Safety curriculum contains 25 topics that address a "safe coping skill" to achieve safety from both PTSD and substance abuse (Najavits, in press). Zlotnick et al. (2003) reviewed the effectiveness of Seeking Safety curriculum with 17 incarcerated women. Upon completion of the program, 9 women (53%) no longer met criteria for PTSD and at a 3-month follow-up 7 still did not meet criteria. This study indicates the potential of the Seeking Safety curriculum to be effective for dual diagnosed incarcerated women. The classes are facilitated by Twilah Winters and are offered once a week. The importance of a curriculum addressing PTSD is highlighted in a study by Wolff et al. (2010), which examines the effects of traumatic experiences on a group of incarcerated females. Out of 97 women, 93% reported significant and complex histories of

traumatic event exposure and high rates of PTSD, substance abuse, or other axis I psychiatric disorders. The authors support the identification of such trauma with the introduction of effective interventions as potential to assist this population in preparing for their post-release lives.

**Life Skills.** The Life Skills Curriculum comes from Bartholomew, Dansereau, and Simpson's (2006) Getting Motivated to Change Curriculum. The Life Skills classes rotate through a variety of topics including: anger management, healthy communication, self-esteem, planning for change, and grief. Leslie Mahoney, a licensed marriage and family therapist, facilitates the classes that are offered once a week.

**Alcoholics Anonymous (AA)/Al-Anon**. Women are required to attend AA and Al-Anon meetings once every 2 weeks. This class is offered every week, but ladies alternate attending weekly in order to follow jail rules regarding maximum class size. Active members in the community facilitate these meetings. The agenda of these meetings follows the typical 12-step curriculum. The meetings are most often literature meetings where women are asked to read a passage or article and discuss how it relates to their personal life.

**Creativity Classes.** Creativity classes are offered to the women once a week and are facilitated by Jennifer McNabb, a Resolana staff member in charge of the creativity curriculum and volunteers. Creativity classes are considered an essential aspect of the Resolana curriculum and allow for the women to express their current struggles and states of mind creatively. Women complete art projects during the class and then discuss with each other feelings the project evoked. An example is a drawing of a safe place, or a letter to someone with whom they wish to mend a relationship. In an environment that is largely sensory deprived, these activities are greatly enjoyed by the women.

**Yoga.** Yoga is offered in the Resolana pod to all women once a week. Certified yoga instructors who have agreed to donate their time to Resolana facilitate these classes. The yoga classes are restorative in nature, providing a meditative component to Resolana programming. Women go through a series of poses meant to gently stretch the muscles, connect to the body, and relax.

**Community Meeting.** The women in the Resolana pod come together 3 mornings a week for community meetings, facilitated by Jennifer McNabb and Leslie Mahoney. During these meetings, announcements are made including descriptions of any upcoming open call classes in which the women have the opportunity to participate. Monday and Fridays, the meetings are used for intention setting for the week. On Monday mornings, each woman writes on an index card an intention for the week and 3 practice steps she is committing to for the week to achieve this goal. On Fridays, some women in the pod share their experience of practicing the intentions with the rest of the pod and all women make notes on the back of the cards about their feelings and comments about their experiences of the week. These cards are turned in on Fridays and are reviewed by Lesley Mahoney with her comments. Wednesdays are reserved for community meetings where women do exercises to wake the body, complete an exercise to enhance community, take part in a reading, and mediate on a word or phrase. All activities are intended to foster change, self-confidence, and community. Deep breathing exercises are also a part of each community meeting.

Appendix B

Institutional Review Board Approval Letter

THE UNIVERSITY
OF TEXAS
AT ARLINGTON

Office of Research
Administration
Box 19188
202 E. Border St., Suite 214
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76019-0188

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Expertise at UT Arlington
http://www.uta.edu/expertise

BeAMaverick™

December 19, 2012

Dr. Regina t Aguirre
School of Social Work
University of Texas at Arlington
Box 19129

**FULL BOARD APPROVAL OF HUMAN SUBJECT RESEARCH**

**IRB No.:** 2013-0042
**Title:** *Resolana: An Evaluation of Holistic Services Provided to Incarcerated Women*
**Approval Date:** **December 12, 2012**
**Expiration Date:** **December 12, 2013**

**Approved number of participants: 500** **(Do not exceed without prior IRB approval)**

The University of Texas at Arlington (UTA) Institutional Review Board (IRB) approved the above-referenced study by majority vote during the Full Board meeting held **December 12, 2012.** IRB approval for the research shall continue until **December 12, 2013.**

## APPROVED NUMBER OF PARTICIPANTS:

This protocol has been approved for enrollment of a maximum of **500** participants and is not to exceed this number. If additional data are needed, the researcher must submit a modification request to increase the number of approved participants **before** the additional data are collected. Exceeding the number of approved participants is considered an issue of non-compliance and will result in the destruction of the data collected beyond the approval number and will be subject to deliberation set forth by the IRB.

## INFORMED CONSENT DOCUMENT:

The IRB-approved informed consent document (ICD), showing the stamped approval and expiration date must be used when prospectively enrolling volunteer participants into the study. The use of a copy of any consent form on which the IRB-stamped approval and expiration dates are not visible, or are replaced by typescript or handwriting, is prohibited. The signed consent forms must be securely maintained on the UTA campus for a minimum of 3 years after all study procedures have been completed. The complete study record is subject to inspection and/or audit during this time period by entities including but not limited to the UT Arlington IRB, Regulatory Services staff, OHRP/FDA and by study sponsors (if the study is funded).

## MODIFICATION TO AN APPROVED PROTOCOL:

Pursuant to Title 45 CFR 46.103(b)(4)(iii), investigators are required to, "promptly report to the IRB ***any*** proposed changes in the research activity, and to ensure that such changes in approved research, during the period for which IRB approval has already been given, are **not initiated without prior IRB review and approval** except when necessary to eliminate apparent immediate hazards to the subject." Modifications include but are not limited to: Changes in protocol personnel, number of approved participants, and/or updates to the protocol procedures or instruments and must be submitted via the electronic submission system. Failure to obtain approval for modifications is considered an issue of non-compliance and will be subject to review and deliberation by the IRB which could result in the suspension/termination of the protocol.

**ANNUAL CONTINUING REVIEW:**
In order for the research to continue beyond the first year, a Continuing Review must be completed via the online submission system within 30 days preceding the date of expiration indicated above. A reminder notice will be forwarded to the attention of the Principal Investigator (PI) 30 days prior to the expiration date. Continuing review of the protocol serves as a progress report and provides the researcher with an opportunity to make updates to the originally approved protocol. Failure to obtain approval for a continuing review will result in automatic ***expiration of the protocol*** all activities involving human subjects must cease immediately. The research will not be allowed to commence by any protocol personnel until a new protocol has been submitted, reviewed, and approved by the IRB. Per federal regulations and UTA's Federalwide Assurance (FWA), there are no exceptions and no extensions of approval granted by the IRB. The continuation of study procedures after the expiration of a protocol is considered to be an issue of non-compliance and a violation of federal regulations. Such violations could result in termination of external and University funding and/or disciplinary action.

**ADVERSE EVENTS:**
The principal investigator is required to report local adverse (unanticipated) events to The UT Arlington Office of Research Administration; Regulatory Services within 24 hours of the occurrence or upon acknowledgement of the occurrence.

**TRAINING**
All investigators and key personnel identified in the protocol must have filed a Conflict of Interest Disclosure and have documented *Human Subjects Protection (HSP)* or other approved training in the protection of human subjects on file with this office prior to protocol submission. HSP training certificates are valid for 2 years from completion date.

**COLLABORATION:**
If applicable, approval by the appropriate authority at a collaborating facility is required prior to subject enrollment. If the collaborating facility is *engaged in the research*, an OHRP approved Federalwide Assurance (FWA) may be required for the facility (prior to their participation in research-related activities). To determine whether the collaborating facility is engaged in research, go to: http://www.hhs.gov/ohrp/humansubjects/assurance/engage.htm

**CONTACT FOR QUESTIONS:**
The UT Arlington Office of Research Administration; Regulatory Services appreciates your continuing commitment to the protection of human research subjects. Should you have questions or require further assistance, please contact Robin Dickey by calling 817-272-9329.

Sincerely,

Maria Martinez-Cosio, Ph.D.
Associate Professor
UT Arlington IRB Chair

Appendix C

Patient Health Questionnaire (PHQ-SADS)

# PATIENT HEALTH QUESTIONNAIRE (PHQ-SADS)

This questionnaire is an important part of providing you with the best health care possible. Your answers will help in understanding problems that you may have. Please answer every question to the best of your ability

| **A. During the last 4 weeks, how much have you been bothered by any of the following problems?** | | **Not bothered (0)** | **Bothered a little (1)** | **Bothered a lot (2)** |
|---|---|---|---|---|
| 1. | Stomach pain..... | ☐ | ☐ | ☐ |
| 2. | Back pain..... | ☐ | ☐ | ☐ |
| 3. | Pain in your arms, legs, or joints (knees, hips, etc.)... | ☐ | ☐ | ☐ |
| 4. | Feeling tired or having little energy..... | ☐ | ☐ | ☐ |
| 5. | Trouble falling or staying asleep, or sleeping too much ..... | ☐ | ☐ | ☐ |
| 6. | Menstrual cramps or other problems with your periods..... | ☐ | ☐ | ☐ |
| 7. | Pain or problems during sexual intercourse..... | ☐ | ☐ | ☐ |
| 8. | Headaches..... | ☐ | ☐ | ☐ |
| 9. | Chest pain..... | ☐ | ☐ | ☐ |
| 10. | Dizziness..... | ☐ | ☐ | ☐ |
| 11. | Fainting spells..... | ☐ | ☐ | ☐ |
| 12. | Feeling your heart pound or race..... | ☐ | ☐ | ☐ |
| 13. | Shortness of breath..... | ☐ | ☐ | ☐ |
| 14. | Constipation, loose bowels, or diarrhea..... | ☐ | ☐ | ☐ |
| 15. | Nausea, gas, or indigestion..... | ☐ | ☐ | ☐ |

***PHQ-15 Score*** ☐ = _____ + _____

| **B. Over the last 2 weeks, how often have you been bothered by any of the following problems?** | | **Not at all (0)** | **Several days (1)** | **More than half the days (2)** | **Nearly every day (3)** |
|---|---|---|---|---|---|
| 1. | Feeling nervous anxiety or on edge .... ..... | ☐ | ☐ | ☐ | ☐ |
| 2. | Not being able to stop or control worrying..... | ☐ | ☐ | ☐ | ☐ |
| 3. | Worrying too much about different things..... | ☐ | ☐ | ☐ | ☐ |
| 4. | Trouble relaxing ..... | ☐ | ☐ | ☐ | ☐ |
| 5. | Being so restless that it is hard to sit still..... | ☐ | ☐ | ☐ | ☐ |
| 6. | Becoming easily annoyed or irritable..... | ☐ | ☐ | ☐ | ☐ |
| 7. | Feeling afraid as if something awful might happen ..... | ☐ | ☐ | ☐ | ☐ |

***GAD-7 Score*** ☐ = _____ + _____ + _____

**C. Questions about anxiety attacks.**

| | NO | YES |
|---|---|---|
| a. In the last 4 weeks, have you had an anxiety attack — suddenly feeling fear or panic?…….. | | |
| **If you checked "NO", go to question E.** | ☐ | ☐ |
| b. Has this ever happened before?…… | ☐ | ☐ |
| c. Do some of these attacks come suddenly out of the blue — that is, in situations where you don't expect to be nervous or uncomfortable?…… | ☐ | ☐ |
| d. Do these attacks bother you a lot or are you worried about having another attack?……..…. | ☐ | ☐ |
| e. During your last bad anxiety attack, did you have symptoms like shortness of breath, sweating, or your heart racing, pounding or skipping?……..…… | ☐ | ☐ |

**D. Over the last 2 weeks, how often have you been bothered by any of the following problems?**

| | Not at all (0) | Several days (1) | More than half the days (2) | Nearly every day (3) |
|---|---|---|---|---|
| 1. Little interest or pleasure in doing things.....…… | ☐ | ☐ | ☐ | ☐ |
| 2. Feeling down, depressed, or hopeless.……..… | ☐ | ☐ | ☐ | ☐ |
| 3. Trouble falling or staying asleep, or sleeping too much.…… …….. | ☐ | ☐ | ☐ | ☐ |
| 4. Feeling tired or having little energy.....……...….. | ☐ | ☐ | ☐ | ☐ |
| 5. Poor appetite or overeating.....…… | ☐ | ☐ | ☐ | ☐ |
| 6. Feeling bad about yourself — or that you are a failure or have let yourself or your family down.…….. | ☐ | ☐ | ☐ | ☐ |
| 7. Trouble concentrating on things, such as reading the newspaper or watching television.……. | ☐ | ☐ | ☐ | ☐ |
| 8. Moving or speaking so slowly that other people could have noticed? Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual…….. | ☐ | ☐ | ☐ | ☐ |
| 9. Thoughts that you would be beter off dead of or hurting yourself in some way…….. | ☐ | ☐ | ☐ | ☐ |

***PHQ-9 Score*** ☐ = _____ + _____ + _____

**E. If you checked off any problems on this questionnaire, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?**

| Not difficult at all | Somewhat difficult | Very difficult | Extremely difficult |
|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ |

Appendix D

PTSD Checklist- Civilian Version (PCL-C)

# PTSD CheckList – Civilian Version (PCL-C)

**Client's Name: _____**

Instruction to patient: Below is a list of problems and complaints that veterans sometimes have in response to stressful life experiences. Please read each one carefully, put an "X" in the box to indicate how much you have been bothered by that problem *in the last month*.

| No. | Response | Not at all (1) | A little bit (2) | Moderately (3) | Quite a bit (4) | Extremely (5) |
|---|---|---|---|---|---|---|
| **1.** | Repeated, disturbing *memories, thoughts, or images* of a stressful experience from the past? | | | | | |
| **2.** | Repeated, disturbing *dreams* of a stressful experience from the past? | | | | | |
| **3.** | Suddenly *acting* or *feeling* as if a stressful experience *were happening* again (as if you were reliving it)? | | | | | |
| **4.** | Feeling *very upset* when *something reminded* you of a stressful experience from the past? | | | | | |
| **5.** | Having *physical reactions* (e.g., heart pounding, trouble breathing, or sweating) when *something reminded* you of a stressful experience from the past? | | | | | |
| **6.** | Avoid *thinking about* or *talking about* a stressful experience from the past or avoid *having feelings* related to it? | | | | | |
| **7.** | Avoid *activities* or *situations* because they *remind you* of a stressful experience from the past? | | | | | |
| **8.** | Trouble *remembering important parts* of a stressful experience from the past? | | | | | |
| **9.** | Loss of *interest in things that you used to enjoy?* | | | | | |
| **10.** | Feeling *distant* or *cut* off from other people? | | | | | |
| **11.** | Feeling *emotionally numb* or being unable to have loving feelings for those close to you? | | | | | |
| **12.** | Feeling as if your *future* will somehow be *cut short*? | | | | | |
| **13.** | Trouble *falling* or *staying asleep*? | | | | | |
| **14.** | Feeling *irritable* or having *angry outbursts*? | | | | | |
| **15.** | Having *difficulty concentrating*? | | | | | |
| **16.** | Being *"super alert"* or watchful on guard? | | | | | |
| **17.** | Feeling *jumpy* or easily startled? | | | | | |

**PCL-M for DSM-IV (11/1/94)** Weathers, Litz, Huska, & Keane National Center for PTSD - Behavioral Science Division

Appendix E

Personal Progress Scale-Revised (PPS-R)

Personal Progress Scale (PPS-R)Personal Progress Scale-Revised

The following statements identify feelings or experiences that some people use to describe themselves. Please answer each question in terms of any aspects of your personal identity that are important to you as a woman, such as gender, race, ethnicity, culture, nationality, sexual orientation, family background, etc. Write your answers in the space to the left of each question using the scale below. For example, for the statement AI have equal relationships...,@ you would write 1 if this is almost never true of you now, 7 if this is true of you almost all the time, and 2 through 6 if the statement is usually not true, sometimes true, or frequently true for you in your life now. There are no right or wrong answers.

*Almost never* *Sometimes true* *Almost always*
1----------2----------3----------4----------5----------6----------7

_____1. I have equal relationships with important others in my life.

_____2. It is important to me to be financially independent.

_____3. It is difficult for me to be assertive with others when I need to be.

_____4. I can speak up for my needs instead of always taking care of other people's needs.

_____5. I feel prepared to deal with the discrimination I experience in today's society.

_____6. It is difficult for me to recognize when I am angry.

_____7. I feel comfortable in confronting my instructor/counselor/supervisor when we see things differently.

_____8. I now understand how my cultural heritage has shaped who I am today.

_____9. I give into others so as not to displease or anger them.

_____10. I don't feel good about myself as a woman.

_____11. When others criticize me, I do not trust myself to decide if they are right or if I should ignore their comments.

_____12. I realize that given my current situation, I am coping the best I can.

_____13. I am feeling in control of my life.

*Almost never* *Sometimes true* *Almost always*
1----------2----------3----------4----------5----------6----------7

_____14. In defining for myself what it means for me to be attractive, I depend on the opinions of others.

_____15. I can't seem to make good decisions about my life.

_____16. I do not feel competent to handle the situations that arise in my everyday life.

_____17. I am determined to become a fully functioning person.

_____18. I do not believe there is anything I can do to make things better for women like me in today's society.

_____19. I believe that a woman like me can succeed in any job or career that I choose.

_____20. When making decisions about my life, I do not trust my own experience.

_____21. It is difficult for me to tell others when I feel angry.

_____22. I am able to satisfy my own sexual needs in a relationship.

_____23. It is difficult for me to be good to myself.

_____24. It is hard for me to ask for help or support from others when I need it.

_____25. I want to help other women like me improve the quality of their lives

_____26. I feel uncomfortable in confronting important others in my life when we see things differently.

_____27. I want to feel more appreciated for my cultural background.

_____28. I am aware of my own strengths as a woman.

## VITA

Laura Frank Terry was born in Orlando, Florida, on November 16, 1979, to Richard and Susan Frank. She received her Bachelors in Psychology at Southern Methodist University in Dallas, Texas, Spring 2002. After some work in the field, she returned to school at the University of Texas in Arlington in order to receive her Master of Science in Social Work, which she completed in 2010. Immediately following graduation, she passed the State License Boards in Texas and in the Fall of 2010 began the Doctoral program at the University of Texas in Arlington.

During the two years of coursework, she served as a Graduate Research Assistant for several projects including: program evaluations on a brief intervention for domestic violence, a qualitative study regarding loss due to suicide, and an education initiative across three major school districts in Texas. These opportunities led to numerous publications for Laura and her faculty Principal Investigators.

After the completion of her coursework, Laura has served as an adjunct faculty member at the University of Texas at Arlington for courses in program evaluation, research methods, interpersonal violence, and human behavior. Laura is currently employed by the University of Texas at Arlington as a Research Associate at the Center for Addiction and Recovery Studies, which is located in Dallas, Texas. The doctoral degree will be conferred upon her in May of 2016. She will continue to work at the Center for Addiction and Recovery Studies as the Research Associate.