

MAKING THE BEST OF IT: MEASURING PRISON ADJUSTMENT
OF LIFE-SENTENCED WOMEN

by

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ABSTRACT

The US has experienced an estimated 500% increase in incarceration rates from the 1980's to present day; an upsurge that has disproportionately affected women's incarceration rates (up 700% over the same time period) (Carson and Anderson 2016). Moreover, the average sentence length increased despite the fact that there is no marked increase in violent crime. Women serving long sentences may experience unique adjustment issues that are either absent from, or operate differently in, men's prison populations and among women who are serving shorter sentences. With little research regarding how women adjust to an extended prison stay, this research contributes to the understanding of the complexity of adjustment for life-sentenced women.

Drawing on a sample of 214 life-sentenced women in a Southern state, this mixed-methods research offers a methodological contribution to the literature by examining an existing overall prison adjustment measure. Using factor analysis techniques, five subscales as well as two stand-alone measures for adjustment resulted, indicating that there are different adjustment types present within the overall measure. Findings suggest that women have the greatest difficulty adjusting to separation from family, overall loss of freedom, and lack of autonomy and control in prison. While still adjustment concerns, these women appear to adjust relatively more easily to abiding by prison rules and policies, inside social life, and psychological adjustment. Consistent with other studies, this research finds that most, although not all, psychologically adjust to prison as their time served increases. This may be a reason that the findings indicate psychological adjustment was less of a concern for the overall sample. Additionally,

variations in women's age, abuse histories, family, and mental health indicators differentially shape women's adjustments to prison living.

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INTRODUCTION

With over 1.5 million people in custody in American prisons and jails, the US is considered the largest jailer in the world (Alexander 2012; Walmsley 2016). The US has experienced a 500% increase in incarceration rates from the 1980's to 2000's (Carson 2018). Importantly, this upsurge in the use of imprisonment as punishment for crime has not only impacted men's incarceration rates, but those of women as well. While women comprise just seven percent of the total prison population, rate of women's incarceration has increased roughly 700% since 1980 (Carson and Anderson 2016). This dramatic rise in incarceration rates; however, does not necessarily point to higher crime rates, but rather to stricter crime policy that places women at a disadvantage (Covington and Bloom 2003). It has been argued that the rise in women's imprisonment is due to changes in drug enforcement policies (Mauer cited in Lempert 2016), policing policies, as well as imposing stricter penalties on offenses such as shoplifting and minor drug charges, which particularly affect poor women of color (Chesney-Lind and Pasko 2004; Nellis 2010).

Moreover, not only are more people, men and women alike, being incarcerated but they are also serving longer sentences. In fact, one in four incarcerated persons is serving a life sentence; this is despite the fact that there is not a marked increase in violent crime (Covington and Bloom 2003; Simon 2000). Nellis (2010) cites changes in legislation as one avenue through which more women are serving longer sentences. More specifically, she cites the expansion of offenses that have life without parole (LWOP) sentences attached to them. To date, LWOP sentences may be imposed in some states for habitual offending or under "three-strikes" laws which allow for the imposition of a life sentence for crimes which may otherwise be misdemeanors, or shorter-sentenced felonies

dependent upon context (Lempert 2016). In fact, of the population serving longer sentences, about one third are serving life without the possibility of parole, or “virtual life” (50 plus years). Conversely, many others will be released upon completion of a lengthy sentence, which has implications for re-entry. Although women make up a small percentage of the life-sentenced prison population approximately 6,700 women are currently serving life, making this population one worthy of study (Nellis 2017).

Bearing the statistics regarding incarceration in mind, the importance of research and programming regarding prison adjustment is important for those facing extended stays, or possibly the remainder of their life, imprisoned. While little research exists on this topic, adjustment is an important part of the prison experience. When individuals are incarcerated for extended periods of time, they are removed from their communities and families and deprived of the freedom to live and work as they choose. Throughout a prisons sentence challenges that may arise involve problems both physically adjusting to the prison setting as well as issues with psychologically adjusting. Incarcerated individuals must continually adjust to both the conditions of confinement and the separation from their families and communities. Much of the present research on prison adjustment focuses on men’s adjustment to the prison setting, with much less research that is solely focused on incarcerated women. Past research has theorized that this may be due to the belief that women adjust more easily to a prison environment or the idea that women typically have fewer violent disciplinary infractions while incarcerated, both ideas which are problematic for an accurate understanding of prison adjustment (Lindquist 1980; McClellan 1994). Importantly, since the women in this study are serving life sentences, they represent a unique sub-section of the larger prison population: being

both women and serving a life sentence. This population may have specific needs in terms of prison adjustment and subsequent successful re-entry upon release than do both men and non-life-sentenced women. For this reason, both the conceptualization and operationalization of adjustment for this population needs more research attention. How do women lifers adjust to prison? Are there different types of adjustment? Does adjustment vary among women based upon characteristics such as race, age, and family dynamics? That is, do some women adjust better than others? Who adjusts in these ways or falls into these adjustment types?

Framed by these questions, I use secondary data from 214 life-sentenced women in a Southern state, to examine women's overall adjustment to a prison sentence. More specifically, I employ a mixed-methods exploratory study to examine an existing prison adjustment scale using factor analysis to identify underlying subscales in order to shed light on the complexity of adjustment and its measurement. I then used the qualitative responses from the data to enrich the quantitative findings and provide a clearer picture of women's adjustment to a long prison sentence. The aim of this research is to gain a better understanding of gender-based needs of women lifers for a successful adjustment to an extended prison stay by more closely examining the measurement of adjustment. With women's incarceration rates outpacing those of men, research regarding gender-specific needs for incarcerated women is necessary to better understand women's experiences with prison living, adjustment to extended stays in prison, and ultimately their successful re-entry post-release from prison.

LITERATURE REVIEW

Background

Adjustment, for the purpose of this research, refers to individuals' behavioral and psychological adaptations, or responses, to incarceration. This includes how an individual reacts to the harsh prison subculture and how this adaptation influences their lives during incarceration as well as their transition back into the community after release. Overall, past studies have linked adjusting "well" to the prison environment to include participating more in prison programming, making constructive use of time, having higher self-esteem, less depression/anxiety, and feeling safe (Dhami, Ayton, and Lowenstein 2007; Van Tongeren and Klebe 2010). Research has also found that maintaining family connections and increased social supports enhances adjustment (Aday & Krabill 2011; Casey-Acevedo & Bakken 2002) Conversely, "poor" adjustment has been characterized by having more disciplinary infractions, more sick calls, higher levels of anxiety and depression, feelings of lack of control, and missing social relationships (Asberg and Renk 2014; Thompson and Loper 2015).

Many early studies on prison adjustment use disciplinary infractions as a measuring rod for adjustment levels and subsequent security classification within the facility (Acevedo and Bakken 2003; Myers and Levy 1978). That is, the more disciplinary infractions, or the more severe the infractions, the more maladjusted (behaviorally) the individual is to prison. However, solely using disciplinary infractions to gauge adjustment is problematic since not all inmates have disciplinary infractions recorded in their files although they may still be experiencing other types of adjustment issues. Additionally, this unidimensional measure can be an unreliable measure of true

adjustment for men and women alike as it ignores the psychological well-being of inmates and focuses solely on one behavioral measure. For women, in particular, using behavior and disciplinary infractions as measures of adjustment may be problematic as research has found that women typically receive more disciplinary write-ups than men but for less serious violations (Lindquist 1980; McClellan 1994; Tischler & Marquart 1989) and that these women may be punished more severely for these violations (McClellan 1994).

Using a different approach, Van Tongeren and Klebe (2010) argue that adjustment is a multidimensional concept that is dynamic and unique to the individual based on a combination of pre-prison experiences and characteristics as well as interactions within the prison environment. To be sure, in a comparative study of male and female inmates and their disciplinary infractions Lindquist (1980) found that women differ from the prison population as a whole in that the sample reported higher rates of past incarceration as a juvenile and adult, and reported more institutional rule violations than men (albeit less serious), calling into question the effects of their life-histories on adjustment. The use of the sole measure of disciplinary infractions, then, may result in an inaccurate picture of women's adjustment issues when other pre-prison experiences may be interacting with the prison environment and shaping their adjustment.

In support of a multidimensional approach beyond solely using disciplinary infractions as a measure of adjustment, Wright (1986) developed the Prison Adjustment Questionnaire (PAQ) to measure inmates' self-perceptions of adjustment issues. The PAQ incorporated three dimensions of adjustment problems: external, internal, and physical as they compared to the inmates' lives and experiences in the free world versus

in prison. The external dimension measured problems with others in prison- such as arguments with staff or inmates as compared to problems with others in the free world. The internal dimension related to problems that the inmate experiences within himself in coping with incarceration and life circumstance. This dimension included emotional responses such as anxiety, fear, and feelings of safety in prison versus in the free-world. Lastly, the physical dimension included issues such as becoming sick or injured while in custody as compared these same feelings pre-incarceration. This study was used to argue for the importance of placement of certain individuals in certain types of prison settings to aid in adjustment based upon the interaction of individual characteristics and the prison environment.

Additionally, Zamble and Porporino (1988, 1992) examined how inmates cope with, or respond to, the conditions of prison. Using a series of interviews and self-report questionnaires with men in prison, the longitudinal study examined coping strategies male prisoners used to adapt to incarceration in a maximum-security prison. The researchers constructed a scale used to measure overall prison adjustment by asked respondents to rate the various aspects of the prison environment in terms of how much they were bothered by the daily circumstances they experienced during the course of their incarceration in addition to missing experiences and relationships in the free-world. Items in this scale included feeling safe and comfortable in the prison, having friends in prison, relationship with prison staff, jobs in prison, emotions, and missing freedoms of the outside world. This scale, and modified versions thereof, are still used in prison research today and will be used in the present study to measure overall prison adjustment (Dye & Aday 2013).

Theoretical Frameworks on Prison Adjustment

Over time, research on incarceration has incorporated differing frameworks for understanding prison adjustment. The two main approaches frequently used for understanding adjustment are the deprivation and importation models (Dhami et al. 2007; Dye 2010; Wright 1991). In *The Society of Captives* (1958), Sykes examined the deprivations experienced by male inmates in a maximum-security prison. Here, Sykes introduced the concept of the “pains of imprisonment.” These pains referred to what Sykes deemed to be the five deprivations, or stressors, of the prison setting that inmates experience in daily prison living. These pains include loss of freedom, loss of access to desirable goods and services, deprivation of heterosexual relationships as well as loss of autonomy and security. Sykes described the prison environment as a community of individuals who eat, sleep, and live together for years on end, who are cut off from the rest of society within their own confined space. This description is resonant of Goffman’s (1961) concept of a total institution. The prison environment, by design, is a very stark environment consisting of constant physical restrictions, lack of privacy, and isolation, which operates under its own rules and its own bureaucracy. Sykes focused his research on how this environment and its associated deprivations function as punishment just as severe as past forms of physical punishment that were once used before incarceration. Although physical punishment was no longer the primary means of punishment, Sykes contended that the physical deprivations of prison are just as painful and damaging to the individual psychologically. More contemporary studies refer to the pains of imprisonment and similar concepts as a move toward “penal harm” instead of physical harm. Sykes (1958:9) described the effects of penal harm in his work:

The individual's picture of himself as a person of value- as a morally acceptable, adult male who can present some claim to merit in his material achievements and his inner strength- begins to waiver and grow dim.

Sykes, then, acknowledged that the prison setting presents inmates with psychological challenges which are inherent in the nature of imprisonment and its associated deprivations. His argument was that it is the individual's reaction to these deprivations that would determine adjustment. Additionally, while it is understood that one of the primary functions of prison is punishment, and this function is evident in virtually every aspect of the prison environment, punishment may be experienced differently by women, who comprise a much smaller proportion of the population incarcerated in prisons and who may exhibit different pathways into prison than men (Leigey 2010).

As mentioned previously, early research framed the prison as a total institution consisting of its own, separate society and organizational structure. In *Asylums*, Goffman reasoned that within the setting of a total institution, individuals are not able to maintain the same level of impression management as they are able to in the free world. This is important since, in this setting, individuals are not able to separate themselves from the stigmas placed on them by society. Goffman referred to this process as "mortification of the self". During the process of mortification, the individual is stripped of his or her individual identity by means of degrading treatment in everyday prison living (penal harm). Examples of such treatment involve invasions of privacy, degradation by prison staff, deprivation of family contact, and even restrictions on appearance and dress. This mortification process may be experienced differently by women in prison who are

commonly mothers and caretakers and who commonly have a greater need for open communication and freedom of emotional expression as compared to men (Cranford and Williams 2008). The restrictive, depersonalizing nature of the prison environment coupled with restrictive visiting policies may cause some women to lose contact with those they care for, compounding the psychological effects of imprisonment for these women.

Interrelated with the mortification process, research has emphasized how this environment of strict control and deprivations in prison led to inmates' assimilation or differential adjustments into the prison society. The subculture of prison is a uniquely new environment to the majority of inmates. With this new environment comes new social roles, norms, expectations, and stressors. Some make their way by finding solidarity within the inmate code and adopting the mores and customs of the prison population—a concept termed “prisonization” (Clemmer 1958). Genders and Player (1987) found considerable evidence for self-mortification and prisonization within the sample of the life-sentenced women they interviewed. Many women in the study exhibited fears of loss of identity and deteriorating psychological well-being. This is clearly exemplified by one woman in the study:

... It's so easy to lose sight of your real self. If you slot in with the system you lose yourself and your mind. The system cracks people. It takes all of their spirit and independence away. It's terrifying. It really is.

In this quote, it is evident that life imprisonment may compromise a woman's feelings of self-worth. In a system of punishment originally designed for men, this quote

exemplifies the need for adequate programming to ensure women's psychological well-being while adjusting to prison life.

While the "pains" and deprivations studied by Sykes still exist in some form in today's prisons, the deprivation model has faced extensive criticism for being unilateral and failing to account for the complexity of prison adjustment dependent upon situational context (Thomas 1977; Thomas and Foster 1972; Van Tongeren and Klebe 2010). Over time, research has expanded to include more deprivations of the prison setting as well as taking into account characteristics that inmates may bring into the prison with them from free society that may shape their prison experience and impact adjustment (Crewe, Hulley, & Wright 2017; Dye 2010; Leigey 2010; Leigey & Reed 2010). Using this model, the importation model, researchers acknowledge the fact that there are certain characteristics that predate incarceration and act to influence the prison experience and adjustment. When examining these imported characteristics, it is important to note the distinctive life circumstances and pathways to prison for women. By understanding women's pathways into prison, there can be a clearer understanding of women's experiences pre-incarceration, during incarceration, and post-release and how all of these experiences culminate to shape an incarcerated woman's life. This understanding has implications not only for addressing these women's needs while incarcerated but may also impact post-release experiences and future recidivism.

More contemporary approaches for understanding the dynamics of prison adjustment have made a move away from viewing the deprivation and importation models as separate, competing, models for understanding prison adjustment. Thomas (1977) made the argument that treating the two approaches as being completely separate

was not an adequate or accurate understanding of adjustment. Thomas and others introduced a third model which combined elements from both the importation and deprivations model as an attempt to better understand adjustment (Thomas 1977; Toch 1992; Wright 1991). Under this model for researching prison adjustment, there is a focus on the idea that there are characteristics intrinsic to the individual, which pre-date incarceration, as well as components of the prison environment itself that not only may stand alone but also interact to ultimately shape adjustment. Again, using this combined model, women's pathways to prison are important to keep in mind due to their differing pre-incarceration life experiences as well as the unique effect certain deprivations may have on these women- such as separation from children, loss of contact with family, loss of feelings of physical comfort and safety, and inadequate healthcare. Three general types of adjustment predictors used in this combined approach typically include items to address pre-prison socialization and experiences of inmates (importation factors), characteristics of the prison itself and the problems created by the prison environment that affect the inmate (deprivation factors), and extra-prison influences such as maintenance of contact with the free world and inmate's expectation of release and quality of life post-release (Thomas 1977).

Contemporary Adjustment Studies

Dhami et al. (2007) studied the effects of time spent in prison and quality of life before prison on prison adjustment for federally-sentenced males. The researchers argue for the independent effects of the deprivation and importation models rather than their interaction effects. Consistent with the importation model, this study found that quality of

life before prison had a significant effect on feelings of current happiness within the prison setting. That is, prisoners who reported a poor quality of life before prison were happier than before their incarceration compared to those who reported a good quality of life before prison. Additionally, those who reported a poor quality of life before prison had more disciplinary infractions than those inmates who reported a good quality of life pre-incarceration. This research found support for the deprivation model as well, but less support for the interaction of both the importation and deprivation factors studied with the exception of family/friend contact. It was found that those reporting a good quality of life pre-incarceration had greater contact with family and friends than those who had a poor quality of life pre-incarceration among those who had spent two or less years in prison. Once time served exceeded two years, there was little difference in friend/ family contact between the two groups. While this study only examined federally-sentenced men, many of the measures could be useful for understanding life-sentenced women's adjustment to an extent.

In their 2010 study of a maximum-security female prison, Van Tongeren and Klebe acknowledge that prison adjustment is a complex and multidimensional concept. The researchers argue for a combined model for understanding adjustment that includes both importation and deprivation factors as well as the interaction between the two. Optimal adjustment, then, is characterized by the ability to acquire basic necessities in prison, temporarily assimilate into the prison society while keeping the thought of future release in mind, taking an active role in rehabilitation, and abandoning criminal thinking. In this study, self-esteem was the best indicator of adjustment; it was related to better environmental adjustment, lower conflict, and greater societal adjustment. This finding is

important for understanding adjustment since many women enter prison exhibiting greater levels of depression and lower levels of self-esteem than their non-incarcerated counterparts (Genders and Player 1987; McClellan et al. 1997; Sheridan 1996).

Furthermore, the researchers found that those who view their time in prison and their cultural adjustment to prison as permanent had poorer adjustment. This finding is important to the present study which aims to examine prison adjustment for women serving life sentences who may feel little hope for future release back into society.

Women Lifers' Adjustment

From a feminist pathways perspective, trajectories into delinquency and involvement with the criminal justice system include gender-specific concerns and risk factors in girls' and women's lives that are not experienced in the same way for boys and men (Daly 1994; DeHart 2008; Dye and Aday 2013; Leigey and Reed 2010).

Importantly, research suggests that women serving long sentences are generally older than those serving shorter sentences, and, for many, this is their first time serving a prison sentence (Dye and Aday 2013). For this reason, it is possible that many women not only enter into prison with gender-specific risk factors that may hinder their adjustment, but they may also be unprepared for the entirely new environment confronting them upon entry into prison, compounding their adjustment concerns (Aday 2003). In her 1994 study, Daly identified typologies of women involved in criminal offending. These typologies included street women, harmed and harming women, drug-connected women, battered women, and other women. Research on women lifers finds that the closest fit for lifers in these typologies include harmed and harming women and battered women which

highlights the role that abuse plays in women's lives. Crewe, Hulley, and Wright (2017) found that women experience an acutely more painful prison experience than their male counterparts due to their specific life circumstance, supporting the notion that pre-incarceration experiences interact with the prison environment to shape various aspects of a woman's life in prison. Past studies of women involved with the criminal justice system have found that these women report abuse and victimization histories, in childhood and adulthood, at rates much higher than those of the general, non-incarcerated population and that this abuse serves as a precursor to delinquent behavior and incarceration (Belknap and Holsinger 2006; Chesney-Lind 1989; Daly 1994; Dye and Aday 2013; Leigey and Reed 2010; Salisbury and VanVoorhis 2009).

This branch of research concerning women's pathways to crime and incarceration is an important consideration for understanding adjustment from a combined importation/deprivation framework. As Leigey and Reed (2010) found in their comparative study of life sentenced men and women, women typically exhibit different pathways to prison than those of men or non-life sentenced women. While abuse was found to be a meaningful indicator of future offending and incarceration for both men and women, type and extent of abuse was different for women than men. While men report greater instances of childhood physical abuse, life sentenced women reported extensive histories of abuse including both childhood sexual abuse and adult physical and sexual abuse at higher rates than their male counterparts. Histories of intimate partner violence, including both physical and sexual abuse, were shown to influence both pathways to prison as well as subsequent adjustment to prison. The mental health impacts of this abuse also influence women's lives both before and during incarceration.

Aside from histories of victimization, women in Leigey and Reed's study also reported a history of familial incarceration and parent/caretaker substance abuse. Other risk factors that have emerged from analyzing the narratives of incarcerated women include histories of mental illness, suicide ideation or attempts, weak social support systems, entry into foster care, and general lack of childhood stability (Wright 1997). Poverty and homelessness are two additional risk factors for these women. Women lifers are commonly mothers and caretakers in their families and this risk of poverty and homelessness can compound difficulties and stress levels. This increase in stress may lead to criminal involvement as a means of survival and support for their children and families. When comparing samples of male and female lifers, Crewe, Hulley and Wright (2017) found that women disproportionately experienced adjustment problems related to loss of contact with family, loss of power, autonomy and control, mental health concerns, and matters of trust, privacy, and intimacy.

In their 2013 study, Dye and Aday found that suicide ideation and attempts were important considerations for women serving life. The study aimed to examine how thoughts of suicide may be imported into prison, exacerbated by a prison stay, or even initially induced by prison experiences. The researchers found that pre-prison experiences as well as prison-related factors have differential impacts on suicide ideation. Pre-prison suicide ideation was related to having a history of abuse and mental health treatment and current ideation was prevalent for women reporting higher levels of depression. Additionally, prison adjustment was related to suicide ideation; those who had current suicide ideation while in prison were characterized as having worse adjustment, few familial supports, and higher levels of depression.

METHODOLOGY

Since prison adjustment is a complex and multidimensional concept, an exclusively quantitative or qualitative approach would not be sufficient for the present research. For this reason, a mixed-methods approach was chosen for this project to gain a more complete understanding of the topic under investigation—prison adjustment of women lifers. The quantitative portion examines an existing overall prison adjustment scale and uses factor analysis techniques to determine if there are any subscales present within the larger measure. In addition to the quantitative items, the survey also included several open-ended questions about women lifers' initial reactions to a life sentence, their initial adjustment, how their adjustment changed with time, and recommendations for what would make their lives in prison better. Their responses to the questions were analyzed for themes regarding the types of adjustment (factors). Representative quotes are included with the quantitative results to illustrate and provide context and clarity to the women lifers' adjustment experiences.

Data and Participants

The target population for this research is women serving life sentences. I relied on secondary data that was collected between January and June 2010. The original researchers collected the data using a self-report survey of a volunteer sample of inmates from three separate women's prisons in a Southern state (Dye and Aday 2103). The questionnaire consisted of closed and open-ended questions on demographics, physical and mental health conditions (including the Hopkins Symptom Checklist [Derogatis 1993]), prison adjustment, prison and social supports, family supports, abuse indicators,

and coping with a life sentence. In total, 214 of the 303 females serving life sentences in the state were surveyed. This equated to about 71 percent of the female lifer population in the state. The majority of women who were not included in the sample were unable to participate because of work conflicts or administrative reasons (i.e., disciplinary and/or mental health). To date, this is the largest available dataset of women lifers.

Description of the Sample

The demographic profile for this sample of women is shown in Table 1. The current age of women serving life in this sample ranges from 19 to 78 years of age at the time of the survey with an average age of 41.4 years being reported. The vast majority of the women report no prior prison history (94.9%) and the average age at incarceration for the sample is 29.3 years of age with a large variation ranging from 12 to 70 years. The racial composition of the sample was evenly split between black and white (46.9% each) with much smaller percentages of women reporting belonging to the Hispanic race or other races (4.2% and 1.9% respectively). Of the women in the sample, the majority have never been married (43.9%) while just under 10 percent report being married (9.4%). About one quarter of the women report being divorced (24.5%), and 18.4 percent widowed. The women in the sample reported high levels of education with 37.5 percent reporting some college or a college degree and 37 percent reporting completion of high school. 69.3 percent of the sample reports having living parents and 70.6 percent report being mothers.

Measures

The original questionnaire included items related to three separate measures of adjustment—overall adjustment, depression, and disciplinary infractions—rather than a single measure. To measure overall prison adjustment, the questionnaire contained a scale similar to that developed by Zamble and Porporino (1988). The scale consisted of 21 items that produced a Cronbach's alpha of .86, indicating strong internal consistency. This Likert-type scale asked respondents to rate certain aspects of imprisonment as bothering them never (0), rarely (1), sometimes (2), often (3), or always (4). For the computation of the scale score, each respondent's item scores on the 21 items were summed. Thus, lower scores indicated better adjustment. The scale ranged from 0 to 76 with a mean of 43.8 (SD = 12.8). The 21 items in the overall adjustment scale can be found in Table 2.

Additional bivariate analyses examined 11 variables which measured demographics, family relationships, and mental health. Current age a ratio-level variable, ranged from 19 to 78 with a mean of 41.43 (SD = 11.96). Age of onset, a categorical variable was divided into three categories—juvenile (1), 18- 29 (2), and 30 and older (3). Twenty-four of the women received their life sentence prior to age 18, while 90 were between 19 and 29 and 98 were aged 30 or older upon receiving their life sentence. Time served was also divided into three categories: less than five years (1), between five and fifteen years (2), and greater than fifteen years (3). Nearly half of the sample had served between five and fifteen years served (49.8%) and 31.2 percent of the women had served greater than fifteen years at the time of the survey. Race, a nominal variable, was coded

as black (1), white (2), Hispanic (3), and other races (4). The sample was evenly split between black and white (46.9% each).

Next, a series of family variables and a single abuse indicator, all binary coded, were used for the bivariate analyses. The four measures relating to family included separate questions which asked women if they had 1) living parents, 2) living children, 3) living grandchildren, and 4) if they were married. Three original items in the dataset asked women if they had ever been physically, sexually, or emotionally abused. These were combined into a single abuse indicator which included any abuse.

Last, Pearson correlations were used to examine the relationship between adjustment and three separate mental health indicators (interpersonal sensitivity, depression, and somatization). Interpersonal sensitivity ranged from 0 to 25 with a mean of 11 (SD = 5.03), depression ranged from 0 to 27 with a mean of 12.71 (SD = 6.02) and somatization ranged from 0 to 32 with a mean of 12.08 (SD = 7.05). These mental health indicators were measured using a modified version of the Hopkins Symptom Checklist (Derogatis 1993). Respondents rated the level at which they were bothered by certain symptoms as "never" (0), "rarely" (1), "sometimes" (2), "pretty often" (3), or "very often" (4). Seven items comprised the scale that assessed interpersonal sensitivity including "feeling easily annoyed or irritated," "your feelings being hurt easily," and "feeling that people are unfriendly or dislike you" ($\alpha=.76$). For depression, the eight questions used included how often the women "feel lonely" or "hopeless about the future" as well as the frequency of suicidal thoughts and tendencies ($\alpha=.79$). Eight items also made up the somatization scale ($\alpha = .84$), and included how often women felt weakness, soreness, or pain in parts of their body. For the computation of the scale scores, each respondent's

item scores were summed. As a result, higher scores indicated a greater manifestation of interpersonal sensitivity, depression, or somatization.

Analysis

For the purpose of this study, the items measuring overall adjustment were examined using a factor analysis to determine if there are any subscales present within the larger measure. The presence of subscales indicated different adjustment types. To gain a clearer understanding of how women lifers adjust to living in prison, I compared mean overall adjustment scores, and mean scores of the subscales, of the women in the sample on various demographic factors and factors related to their lives pre-incarceration to determine if adjustment varies for different groups of women. The same demographic variables and other relevant variables were then used to compare mean scores on the subscales identified in the factor analysis. The qualitative responses of the women were incorporated throughout the analyses to provide a picture of what each subscale (adjustment type) looks like for the women in the sample.

Since this research uses secondary data, variables for analysis were limited to those contained in the original survey, including that of the original adjustment scale. Additionally, since the data collected were from a self-report survey containing potentially sensitive information, administered in a prison setting, there is a chance that women's responses may be influenced by the environment or fear of prison administration hearing/ reading their responses.

RESULTS

Factor Analysis

A factor analysis was conducted to determine what, if any, underlying structure is present within the 21 items from the original overall adjustment scale. The results of a factor analysis produced a total of five factors when using a loading cutoff of .4. Additionally, two variables did not load with the others and were thus used as stand-alone measures of adjustment. These single-item measures were 1) adjustment to abiding by prison rules and policies and 2) women's worry that family has forgotten them. Four items cross-loaded (bored, freedom, relationship, and fitting). The decision on final placement of these four items was based on prior research and measures of internal consistency within each cross-loaded factor. Upon placement of these four items, inter-item correlations for each set of statements from the five final factors were examined to ensure internal consistency (see Table 3). Each of the five subscales of adjustment were created by summing each respondent's item score for each factor and dividing by the number of items in each factor; thus, higher scores equated to worse adjustment for each factor. The Cronbach's alphas for each were as follows: factor 1: psychological adjustment = .761; factor 2: outside deprivations = .743; factor 3: loss of autonomy and control = .649, factor 4: physical prison environment = .70; and factor 5: inside social life = .63. The results of the factor analysis accounted for 65.3% of the variance in prison adjustment.

The five factors and two single-item measures corresponded to elements that the literature and past studies cite as being issues of consideration when using a multidimensional approach to understanding prison adjustment (Thomas 1977; Zamble

and Porporino 1988; Wright 1991; Toch 1992; Van Tongeren and Klebe 2010). When assessing the mean scores for each adjustment factor that resulted from the factor analysis, adjustment types producing the highest mean scores (worse adjustment) were those relating to separation from family and deprivations from the outside. Lower adjustment scores (better adjustment) were found in the factors relating to abiding by prison rules and policies and psychological adjustment. More specifically, the highest mean adjustment score was for adjustment to outside deprivations ($M = 3.2$) and the lowest mean score was for the single-item measure regarding adjusting to prison rules and policies ($M = .793$). A more in-depth description of the resulting factors follows along with quotes from the women exemplifying different adjustment types.

First, the psychological adjustment factor related to women's mental and emotional adjustment to living in prison. The items that loaded on this factor were: crazy, institutionalized, goals, annoyed, and bored. The psychological adjustment scale ranged from zero to four with lower scores indicating better psychological adjustment. This adjustment type ranked as one of the adjustment factors that women adjust relatively more easily to in comparison with the other factors. It produced a mean score of 1.13.

The items that loaded on the outside deprivations factor, the second uncovered by the factor analysis, were: friends, separated, freedom, touch, and parole. The outside deprivations scale ranged in score from zero to four with lower scores indicating better adjustment. This scale produced a mean of 3.2, ranking the highest of all of the adjustment types, indicating that this was the factor for which women had the worst adjustment scores on average. All of the items in this sub-scale related to the women's

worries and pre-occupation with separation from their social relationships and connectedness to the free-world. Reviewing the qualitative responses to the questionnaire, several women voiced their concerns and feelings about their separation from the outside world and social relationships they had before their incarceration. One woman shared her thoughts on losing touch with family and her proposed solution to help women keep up-to-date with the free world

Our family members become ill and there is nothing we can do, not even the hope of getting out soon to help. Family members die, and you can't go to even say goodbye; I would like to have a lifers group that keeps us up to date on what is going on outside like how to use a laptop, cell phone and keeping us up to date on the changes on the outside.

Another woman described her initial reaction to her life sentence and how this has not changed much with time.

My heart stopped, and time stood still. I could not wrap my mind around life without my children. I thought I'd rather die if they had to grow up without me. I haven't adjusted. I'm just here until God sees me home.

This woman, age 30, who has been in prison for two years, mirrors the pain and devastation that other women in the sample expressed regarding their sudden loss of family and freedom.

The third factor, autonomy/ control, included the variables grievances, sick, and safe. These three items related to women's feelings that they were in control of their health and safety within the prison setting. Many of the qualitative responses from the women in the sample did indicate their desires for better healthcare, while fewer women

called into question their physical safety. There were mixed responses regarding their feelings about staff's treatment toward the women and listening to their grievances. Many women reported being dissatisfied with this aspect of imprisonment while others felt that their grievances were heard.

[They treat us] like we don't matter, and that they don't care because we are going to die here anyway.

They treat us like nobodies, like we are the worst people in the world.

Most treat us as individuals or don't discriminate to our sentence label.

When asked about healthcare specifically, reactions from the women were more negative than positive with many women voicing their dissatisfaction with the medical care they receive.

Medical took my soft shoe profile and no chemicals profile. [They] wouldn't honor it. The Deputy Warden and Treatment go along with whatever the doctor says. [It's] just a losing battle.

This concern, regarding quality of medical care within a prison setting, needs further research and does have implications for many dimensions of women's adjustment.

Items that loaded on the physical prison environment factor were: privacy and comfort. These two items related to women's reported feelings about their comfort in the prison setting. One woman who replied to the questionnaire stated her views on the physical prison environment in the following statement:

...lifers need more privacy, alone time, more activities. We don't like to see people who keep coming back when we haven't had our second chance at life outside. We need better dental care, a healthier diet, [including] fresh fruits and

vegetables, vitamins, preventative dental care, more privacy, a cleaner and more sanitary environment, and more phone access.

This woman, who is 45 years old and had served 10 years at the time of the survey, expresses feelings of lack of privacy and comfort in her response that other women in the sample also shared.

The final sub-scale identified in the factor analysis was adjustment to social life inside. The factors that loaded on the social life inside factor were: job, along, fitting, and relation. These four items related to women's social relationships inside prison including in their jobs, and interactions with other inmates and with prison staff. Two women shared their thoughts on social relationships and the importance of these supports:

We try to encourage each other to smile and hold our heads up.

...I found some friends and they and I started doing bible studies and that helped me a lot.

The first of two single-item measures, abiding by prison rules and policies, was the lowest ranking adjustment factor for women ($M = .793$). That is, compared to other factors, women adjusted better to prison rules and policies than other areas of prison living.

If you follow the rules and do as you are told it would make your time a lot better.... Keep your head up at all times and don't focus on your time. Do your time don't let the time do you. - 44 year-old who has served 18 years.

This quote, as well as several others in the sample point to the idea that prison rules and policies are easier to adjust to than other measures of adjustment once given time to learn the expectations.

The final single-item measure discussed is women's fear that family members will forget them. Apart from adjustment to outside deprivations, this factor had the highest mean score ($M = 2.667$). This indicates that women do not adjust easily to their separation from family and are bothered quite frequently by this thought. Several women in the survey expressed their initial shock and hopelessness when they received their life sentences. Many of the women who had these feelings upon sentencing also expressed their fears of their family forgetting them or moving on without them- a feeling that is reflected in the two quotes that follow:

A fifty-year-old woman who has served fifteen years expressed this sentiment when asked about special needs for women lifers:

Having what we need after being in here for a while people tend to forget about you; being able to go to the store, call home, get visitation, and packages.

Another woman, who was sentenced at age fifteen and has served fourteen years stated:

...after doing a lot of time, family members die or move on with life—how can we have support if they leave us locked up 20 years or more. We deserved a chance at life. Lifers usually do well once they are released, but they bring us in young and we leave out old.

Bivariate Analyses for Overall Adjustment

When reviewing the percent distributions (see Table 2) for the items in the overall prison adjustment scale, 79% of the women report always being bothered by separation from friends and family, 60% report worries about their parole standing, and over half

(55.3%) are always bothered by coping with their loss of freedom. Conversely, items that women reported relatively less preoccupation with were performing their assigned jobs and abiding by prison rules and policies with 53.4% and 65.7% respectively reporting never being bothered by these things.

Comparing means of the overall adjustment scale based on the various demographic, family, abuse, and mental health variables, to see which groups of women adjust best, several statistically significant differences resulted (see Tables 4 and 5). The Pearson correlation to determine the effects of age on overall adjustment showed that age and overall adjustment are significantly correlated at the .01 level. This was, however, a weak, negative correlation explaining about 6.1% of the variance ($r = -.247$, $r^2 = .061$, $p < .01$). The results of the ANOVA for time served and overall adjustment evidenced a statistically significant difference in adjustment levels for those who have served less than five years ($M = 46.919$, $SD = 14.925$) and those who have served greater than fifteen years ($M = 39.344$, $SD = 12.274$, $p < .05$) with those who have served greater than fifteen years reporting better adjustment. Additionally, there was a statistically significant difference between those who have served between five and fifteen years ($M = 45.559$, $SD = 11.726$) and those who have served greater than fifteen years ($p < .01$), with those in the former category reporting worse adjustment than those who have served greater than fifteen years.

When examining the relationship between adjustment and several family variables, results showed that having living parents and living grandchildren were both statistically significant at the $p < .01$ level. Those who have living parents ($M = 45.82$) reported, on average, worse adjustment levels than those without living parents ($M =$

39.86), whereas those who report having grandchildren ($M = 40.702$) report, on average, better overall adjustment levels than those without grandchildren ($M = 45.816$). Also, having a history of abuse was a statistically significant predictor of overall adjustment levels. Those who reported abuse ($M = 45.161$) have, on average, worse adjustment than women who do not report histories of abuse ($M = 43.394, p < .01$).

Lastly, the Pearson correlations to assess the degree of the relationship between interpersonal sensitivity, depression, and somatization with overall adjustment produced results indicating that interpersonal sensitivity and depression were the most closely correlated to overall adjustment of the three measures. They both produced moderate correlation coefficients at the .01 level. Interpersonal sensitivity accounted for about 42.1 percent of the variance in overall adjustment ($r = .649, r^2 = .421$) while depression accounted for about 32 percent of the variance ($r = .655, r^2 = .320$). Somatization was weakly correlated with overall adjustment, accounting for about 5.5 percent of the variance ($r = .234, r^2 = .055$).

The ANOVA to compare means based on age of onset did not produce any statistically significant results ($F=.857, p=.426$). Race also did not produce any statistically significant means differences in overall adjustment levels ($F=.943, p=.421$) nor did being married ($p = .790$) or having children ($p = .507$).

Bivariate Analyses for Adjustment Factors

For each subscale I began by examining the race, age of onset, current age, and time served variables in a series of bivariate analyses using each of the adjustment measures resulting from the factor analysis. Across all factors, there were no statistically

significant differences in adjustment between races. The only statistically significant difference in adjustment by age of onset was found in adjustment to prison rules and policies. The results of the ANOVA showed that those who were juveniles at their age-of-onset ($M = 1.333$) were statistically different from both those who were between 18 and 29 years of age at onset ($M = .813$) and those who were over 30 years old at onset ($M = .616$), with those who were juveniles at onset reporting the worst adjustment to prison rules and policies. When correlating current age and the different adjustment factors (see Table 5), there were statistically significant differences in psychological adjustment and adjustment to prison rules and policies by age. Both of the correlations showed a weak, negative correlation suggesting that as age increases, adjustment on these two factors improves.

Using another ANOVA, with time served, there were statistically significant differences in psychological adjustment, adjustment to the physical prison environment, adjustment to inside social life, and abiding by prison rules and policies. There was a statistically significant difference in psychological adjustment levels dependent upon time served ($F = 8.08, p < .001$). While there was no significant difference in psychological adjustment levels between those who had served less than five years and those who had served between five and fifteen years ($p = .068$), there was a statistically significant difference in adjustment between those who had served less than five years ($M = 2.17$) and those who had served fifteen or more years ($M = 1.41; p < .001$) as well as between those who had served between five and fifteen years ($M = 1.77$) and greater than 15 years ($M = 1.41; p < .05$).

Similarly, when comparing the mean adjustment to the physical prison environment dependent upon the three categories of time served, differences existed in adjustment levels between those who had served between five and fifteen years and those who had served greater than fifteen years ($p < .05$). There was a mean difference of about .42 in adjustment levels between these two groups with those serving between five and fifteen years exhibiting worse adjustment on average.

Time served also had an effect on mean adjustment to social life inside ($F = 7.08$, $p < .001$). Differences were observed between who had served less than five years ($M = 1.41$) and those who had served greater than fifteen years ($M = .887$, $p < .001$). Women who had served less than five years scored just over half a point higher in adjustment to social life inside than those who had served greater than fifteen years. That is, those who had served fifteen or more years scored better on this adjustment type than those who had served less than five years. Additionally, those who had served between five and fifteen years had worse adjustment scores for inside social life than those who had served greater than fifteen years by about .3 points, on average ($p < .05$).

Lastly, when examining time served and adjustment to prison rules and policies, there was a statistically significant difference between those who had served between five and fifteen years ($M = .951$) and those who had served greater than fifteen years ($M = .697$, $p < .05$), again, with those serving over 15 years exhibiting better adjustment. From these results, it can be seen that adjustment to various aspects of a prison sentence improves with time. One woman shared her experience regarding how her adjustment has changed over time:

My initial adjustment was fear of the unknown, being around strangers and how I would be treated by the other inmates and staff. The adjustment has changed with time because my perspectives have changed, my inner self has changed. No fear. I'm learning how to handle adversity positively.

This quote, from a 40-year-old woman who has served seven years, exemplifies the dynamic nature of adjustment and how, for her, she initially met her life sentence with fear but has since changed her perspective and "inner self" which points to her process of internally working toward adjustment.

Next, a series of family variables (marital status, children, grandchildren, living parents, and abuse history) were examined using bivariate analyses. Being married was a predictor only for adjustment to abiding by prison rules and policies. That is, those women who were not married ($M = .989$) exhibited poorer adjustment to prison rules than those who were married ($M = .652$; $p < .01$). Being a mother or a grandmother also had an effect on women's adjustment to rules and policies. Women without children ($M = 1.049$) and grandchildren ($M = .940$) exhibited worse adjustment to prison rules and policies than those with children ($M = .692$) and grandchildren ($M = .528$) when testing at the .05 level. Additionally, mean psychological adjustment differences were observed for women with grandchildren ($M = 1.474$) compared to those without grandchildren ($M = 1.86$; $p < .01$), suggesting that those women without grandchildren were worse psychologically adjusted than those with grandchildren. The opposite was found for women with living parents ($M = 1.83$) and those without living parents ($M = 1.482$; $p < .05$). Women without living parents scored better on psychological adjustment than those with living parents. The same conclusion was reached regarding adjustment to lack of

autonomy and control within the prison setting. Women with living parents ($M = 2.468$) were worse adjusted to their loss of autonomy/control than those without living parents ($M = 2.079$). Importantly, the only statistically significant difference in adjustment measures for women's fear that family would forget them was found between women who are mothers and those who are not. Women who are mothers are worse adjusted to this aspect of imprisonment than those who are not mothers (mean scores 2.861 and 2.224 respectively). While further analysis is needed to more fully understand these relationships, preliminary results suggest the possibility that women with family members, potentially dependents or minors, may be more motivated to follow rules and policies to ensure visitation with these family members. Also, age and time served may moderate some of these findings.

Lastly, when examining a series of three mental health indicators, interpersonal sensitivity, depression, and somatization, using a correlation analysis, several statistically significant differences in mean adjustment scores resulted (see Table 5). First, interpersonal sensitivity was related to all five adjustment factors as well as both stand-alone measures when testing at the .01 level. These relationships were all positive but ranged from weak ($r = .292$) to moderate ($r = .658$). The strongest relationship existed between interpersonal sensitivity and psychological adjustment, which explained about 43% of the variance. This relationship was weakest when correlated with abiding by prison rules and policies, with this factor explaining just under seven percent of the variance. The second measure, depression, was also moderately correlated with psychological adjustment ($r = .633$) with depression accounting for about 40 percent of the variance in psychological adjustment. The relationship between depression and the

remaining six adjustment measures was much weaker, although still statistically significant, explaining between roughly five percent (physical prison environment) and 13 percent (inside social life) of the variance ($r = .225$ and $.361$ respectively). The final mental health indicator, somatization, had no statistically significant relationship with adjustment to outside deprivations, adjustment to inside social life, abiding by prison rules and policies, or women's fear of family forgetting them. There was a positive relationship between somatization and psychological adjustment, adjusting to loss of autonomy/control, and adjusting to the physical prison environment although all of these relationships were weak. Somatization accounted for just over two percent of the variance in adjustment to the physical prison environment ($r = .152$) and just over seven percent of the variance in adjusting to loss of autonomy and control ($r = .270$).

DISCUSSION

Taken together, these results conclude that there are unique subscales present within the overall adjustment measure indicating different adjustment types as well as different groups of women who adjust to prison differently. This is an important finding for attempts to better understand how prison differentially affects women dependent upon variety of sociodemographic and mental health factors.

When analyzing the results of the bivariate analyses for the overall adjustment scale, women who are older are generally better adjusted than their younger counterparts. Additionally, without considering current age, overall adjustment tends to improve as time served increases. More specifically, those who have served greater than fifteen years report better overall adjustment levels than either of the other two groups analyzed. Similar findings were found in Aday and Krabill's 2011 study of women aging in prison.

While many older inmates have initial difficulties with adjustment, these difficulties may wane over time and the women may become better adjusted.

Histories of abuse were also significant in affecting adjustment levels for women. Those women with abuse histories exhibited worse adjustment than those without histories of abuse. These results support findings of past studies relating to women serving time in prison regarding how abuse histories interact with the prison environment to shape adjustment outcomes (Leigey and Reed 2010; Crewe, Hulley, and Wright 2017). When considering mental health indicators, interpersonal sensitivity, depression, and somatization, were all positively correlated to women's overall adjustment. That is, those who had signs of poorer mental health also reported overall worse adjustment.

The next step in the research was to assess whether there were different adjustment types within the overall adjustment scale. This was confirmed by the factor analysis. Then, the same bivariate analyses were run within each adjustment type to see if differing groups of women adjust in these differing adjustment types. Findings indicate that the factors most difficult for women to adjust to are outside deprivations and separation from friends and family. Areas that women adjust relatively more easily to include abiding by prison rules and policies and their psychological adjustment.

Psychological health measures used in past research, such as depression and anxiety, have a negative relationship with time served (Zamble 1992). MacKenzie and Goodstein (1985) found no evidence of psychological deterioration in their study of long-term offenders but rather that inmates develop strategies to cope with prison over time. This study, however, was comprised solely of male inmates which may overlook gender-specific psychological needs for women such as maintained contact with their families

and children, histories of abuse, and other mental health considerations. While the present study does point to psychological adjustment as being one factor that women adjust to relatively more easily, other, related measures show that women's prison populations may differ in some regard concerning psychological adjustment. While the correlations were generally weak, measures of interpersonal sensitivity and depression were positive and statistically significant for all factors in the analysis. Moreover, correlations were moderate to high on the psychological adjustment measure indicating that as women adjust, interpersonal sensitivity and depression decrease. This is consistent with past research regarding women's mental health while in prison. For example, Dye and Aday (2013) found that adjustment to prison was a predictor of current suicide ideation and that abuse, prison adjustment factors, and mental health status all play a role in suicide ideation for women in prison.

A similar relationship existed for histories of abuse as well. For those women reporting abuse, their psychological adjustment, adjustment to outside deprivations, and the fear of family forgetting them were worse than for those women without abuse histories. This finding aligns with the literature addressing the impact of abuse and victimization on women's pathways to prison, their prison adjustment and experiences, and special needs during confinement (Crewe, Hulley, and Wright 2017; Dye, Aday, Fareney and Raley 2014; Fedock 2017; Leigey and Reed 2010).

While neither of these findings from the present study include changes over time, they do point to the importance of considering women's mental health and abuse histories in relation to adjustment. When looking at time served, however, findings do support the notion that psychological adjustment improves with time, consistent with the literature.

The present study found that those who have served greater than fifteen years are better psychologically adjusted than those who have served less time. The same conclusion was reached in terms of adjustment to inside social life. That is, those serving greater than fifteen years report better adjustment to inside social life than those who have served less time. One woman, who was sentenced at 17 and has since served 30 years in prison explained how her friendships in prison act as her social support since she has no family connections. She also explained how her initial adjustment to prison has changed over time.

I have no interaction with my family. I have friends who I interact with. We discuss current events, finances, jobs, their families. At first, I was very disruptive. I got in trouble a lot. Now, I am 11 years D.R. free. I live in the Honor Unit. I work in the library.

This statement about her shift to abiding by prison rules and remaining disciplinary referral free is supported in the quantitative findings of the study. Women who have served greater than fifteen years are more adjusted to abiding by prison rules and policies than are those women who have served between five and fifteen years. Those who are older are also more adjusted to abiding by prison rules and policies.

Although research suggests that prison adjustment typically improves over time, it is apparent that there are exceptions to this trend. This is illustrated by a 38-year-old woman who has served six years.

I still have not adjusted. I probably never totally will. I can't get used to this lifestyle. I'm very, very uncomfortable. The adjustment has not changed with time as of yet, even after almost seven years of incarceration.

Another woman who was sentenced at age 17 and has served 18 years in prison shared her feelings of fear and loss when asked how she compares her adjustment with that of other women in her same situation.

We all feel a sense of loss. We ache and cry a lot for our families. We are scared within... we reach out to one another. We all have lost a lot in life.

For women who share these sentiments, continued research of prison adjustment for women serving life sentences is important to begin to remedy these feelings of discomfort and maladjustment which is detrimental not only to their mental and physical health in prison but is also detrimental to their outlook post-incarceration when they may return to society.

There may also be additional patterns for why women adjust to prison, specifically as adjustment relates to “just following the rules.” As the bivariate analyses suggest, mothers and women who are married have great incentives to adjust to the rules—their ability to visit and connect with their children and significant others depends on their adjustment. Given women’s difficulty adjusting to outside deprivations, adjusting to prison policies and rules becomes more salient and understandable. It is unclear why women with living parents are worse adjusted along many of the factors. The bivariate relationships could be spurious—accounted for by a third variable such as age or time served—or indirectly related to adjustment. In addition, what accounts for this finding may differ for different types of women. For example, women lifers who arrive at their sentences young have more trouble with family relationships (living parents) as well as abiding by prison policies and rules; however, women lifers who have outlived parents

have done so while serving their life sentences and have adjusted with time and age. These types of relationships require additional analyses at the multivariate level.

CONCLUSIONS

Despite limitations with the data and analysis, the present research does contribute to the relatively small body of literature on women lifers' prison adjustment. With the continuation of mass incarceration and the growing length of prison sentences, a deeper understanding of gender-specific adjustment concerns remains needed to improve life for women in prison as well as to improve their life chances in rebuilding their lives upon release. To this end, the present research aims to provide a clear adjustment measure and to shed light on the unique adjustment factors for women lifers, a very small and often overlooked percentage of the prison population. The research has uncovered different adjustment types through the factor analysis and examined which women adjust to these differing types by examining the multiple bivariate analyses.

While the intent of this research was to use factor analysis to uncover the presence of different adjustment types from an overall adjustment scale, further research should look more comprehensively at each factor to better understand adjustment for women lifers. Although not the focus of the present research, additional variables should be examined to gain a better understanding of adjustment as well. Furthermore, there is a need for a series of multivariate regression analyses to aid in predicting, and improving, adjustment for this population. As a result, awareness about gendered pathways to prison and how these life histories interact with the prison environment should next lead to

improved programming for women serving life so that, although separated from the free-world, these women may create a more positive environment for themselves within the confines of prison.

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APPENDICES

APPENDIX A – TABLES

Table 1: Demographic Profile of Women Lifers

	Mean (S.D.) or %
<u>Current Age</u>	41.4 (11.96)
19-29 years	17%
30-39 years	31.6%
40-49 years	24.1%
50+ years	25%
<u>Prior Incarceration</u>	
Yes	5.1%
No	94.9%
Time Served (years)	12 (6.7)
<u>Race</u>	
White	46.9%
Black	46.9%
Other	6.1%
<u>Education</u>	
Less than H.S	25.5%
High School Graduate	37%
Some College	26.4%
College Graduate	11.1%
<u>Marital Status</u>	
Married/ Cohabiting	11.3%
Never Married	43.9%
Divorced/ Separated	26.4%
Widowed	18.2%
<u>Living Family (% yes)</u>	
Parents	69.3%
Children	69.6%
Grandchildren	34.9%

Table 2: Percent Distributions for Scale Items

	Never	Rarely	Sometimes	Often	Always
Being separated from family members	1	1.4	4.8	13.8	79
Not knowing where you stand with parole	3.8	5.2	12.8	18	60.2
Dealing with your loss of freedom	1.4	2.9	18.3	22.1	55.3
Missing friends and outside social life	7.7	6.2	14.8	20.1	51.2
Worried of getting sick in here	3.3	10.5	19	23.3	43.8
Wishing you had more privacy and quiet	6.2	8.6	27.6	18.1	39.5
Feeling out of touch with the world	6.8	6.3	26.6	24.2	36.2
Family members who have forgotten you	7.3	9.3	26.8	22.4	34.1
Staff not listening to grievances	15.6	9	22.6	21.2	31.6
Being bored/ lots of idle time	13.3	23.8	24.8	16.7	21.4
Feeling comfortable in your prison quarters	10	21	34.3	16.7	18.1
Being afraid of going crazy	33.7	16.3	20.2	12.5	17.3
Not feeling physically safe	26.9	25.5	24	7.7	15.9
Having no goals and ambitions	35.1	17.6	21.5	10.2	15.6
Getting annoyed or irritated	6.2	20.1	46.9	15.8	11
Worried about becoming institutionalized	45	16.6	17.5	10	10.9
Not fitting in with other inmates	45	28.4	15.2	6.6	4.7
Relation with prison staff	19.9	30.3	38.4	7.1	4.3
Getting along with other inmates	19.8	33.5	37.7	6.6	2.4
Performing job assigned to you	53.4	30.3	12	2.4	1.9
Abiding by prison rules and policies	65.7	33.2	17.8	2.9	0.5

Table 3: Factor Analysis of 21-Item Prison Adjustment Scale

	Loading	Alpha	Mean	Inter Item <i>r</i>	Bivariate Associations
Factor 1: Psychological Adjustment		.761	1.72	.394	Age, time served, family, abuse, mental health indicators
Being afraid of going crazy	.776		1.63		
Worried about becoming institutionalized	.752		1.25		
Having no goals and ambitions	.677		1.54		
Getting annoyed or irritated	.653		2.05		
Being bored/ Lots of idle time	.471		2.09		
Factor 2: Outside Deprivations		.743	3.2	.390	Family, abuse, mental health indicators
Missing friends and outside social life	.799		3.01		
Being separated from family members	.798		3.69		
Dealing with your loss of freedom	.633		3.27		
Feeling out of touch with the world	.565		2.77		
Not knowing where you stand with parole	.522		3.26		
Factor 3: Lack of autonomy and control		.649	2.33	.376	Family, mental health indicators
Staff not listening to grievances	.734		2.44		
Worried of getting sick in here	.626		2.94		
Not feeling physical safe	.609		1.6		
Factor 4: Physical Prison Environment		.699	2.44	.537	Time served, mental health indicators
Wishing you had more privacy and quiet	.725		2.76		
Feeling comfortable in your prison quarters	.757		2.12		
Factor 5: Inside Social Life		.629	1.13	.311	Age, time served, mental health indicators
Performing the job assigned to you	.716		.69		
Getting along with other inmates	.606		1.38		
Not fitting in with other inmates	.403		.98		
Relationship with prison staff	.445		1.46		

Note: mean scores derived from a 5- point scale. (0= never bothers me, 4= always bothers me)

Note: Examination of bivariate associations with age, age at sentence, time served, family characteristics, abuse, and mental health indicators. Significant associations noted in table.

Table 4: Bivariate Results for Select Variables on Overall Prison Adjustment and Sub-scales

	Factor 1: Psychological Adjustment	Factor 2: Outside Deprivations	Factor 3: Autonomy/ Control	Factor 4: Prison Environment	Factor 5 Inside Social Life	Prison Rules & Policies	Family Members Forgetting	Overall Adjustment
Mean:								
Married								
No	1.701	3.184	2.320	2.440	1.102	.989	1.270	43.511
Yes	1.888	3.313	2.458	2.652	1.365	.652	.900	47.458
	F=.016, p=.371	F=.538, p=.430	F=.109, p=.529	F=.211, p=.366	F=.012, p=.088	F=.109, p<.01	F=.180, p=.218	F=.000, p=.153
Children								
No	1.875	3.176	2.421	2.484	1.243	1.049	2.224	44.936
Yes	1.662	3.229	2.308	2.452	1.085	.692	2.861	43.660
	F=.008, p=.144	F=.215, p=.633	F=.009, p=.464	F=.509, p=.845	F=.023, p=.140	F=.006, p<.01	F=.190, p<.01	F=.118, p=.507
Grandchildren								
No	1.86	3.267	2.439	2.530	1.201	.940	2.618	45.816
Yes	1.474	3.1	2.164	2.333	1.001	.528	2.778	40.703
	F=.02, p<.01	F=5.539, p=.114	F=.415, p=.063	F=.371, p=.205	F=.167, p=.061	F=2.546, p<.01	F=.262, p=.382	F=.439, p<.01
Parents								
No	1.482	3.02	2.079	2.270	1.008	.667	2.689	39.860
Yes	1.830	3.291	2.468	2.545	1.183	.843	2.662	45.822
	F=.857, p<.05	F=.789, p<.05	F=.002, p<.01	F=2.214, p=.086	F=.045, p=.099	F=1.305, p=.109	F=.487, p=.890	F=1.317, p<.01

Table 4, cont.

Abuse History								
No	1.333	2.785	2.108	2.125	.962	.546	1.714	36.394
Yes	1.778	3.292	2.349	2.503	1.158	.836	2.821	45.161
	$F=.223, p<.01$	$F=18.137, p<.05$	$F=4.367, p=.301$	$F=.965, p=.07$	$F=.000, p=.146$	$F=.460, p=.079$	$F=2.594, p<.001$	$F=10.118, p<.01$
Time Served								
< 5 years	2.172	3.104	2.429	2.583	1.405	.667	2.5833	46.919
5- 15 years	1.773	3.247	2.430	2.559	1.178	.951	2.768	45.559
> 15 years	1.410	3.189	2.070	2.143	.887	.597	2.541	39.344
	$F=8.081, p<.001$	$F=.509, p=.602$	$F=2.778, p=.065$	$F=3.383, p<.05$	$F=7.080, p<.01$	$F=3.636, p<.05$	$F=.711, p=.492$	$F=6.198, p<.01$
Age of onset								
Juvenile	1.802	3.317	2.375	2.583	1.135	1.333	2.546	45.917
18-29	1.778	3.218	2.301	2.406	1.101	.813	2.771	44.268
30+	1.604	3.193	2.318	2.442	1.149	.616	2.588	42.483
	$F=.893, p=.411$	$F=.682, p=.507$	$F=.051, p=.950$	$F=.257, p=.773$	$F=.110, p=.896$	$F=6.750, p<.01$	$F=.606, p=.546$	$F=.857, p=.426$
Race								
Black	1.897	3.162	2.443	2.423	1.130	.794	2.537	44.667
White	1.546	3.215	2.203	2.418	1.141	.804	2.823	42.798
Hispanic	1.878	3.533	2.852	2.833	1.167	.778	2.556	49.111
Other	1.475	3.750	2.000	3.250	1.063	.750	3.000	46.000
	$F=2.459, p=.064$	$F=1.544, p=.204$	$F=1.912, p=.129$	$F=1.198, p=.311$	$F=.024, p=.995$	$F=.008, p=.999$	$F=.984, p=.401$	$F=.943, p=.421$

Table 5: Bivariate Correlations for Prison Adjustment, Age, and Indicators of Mental Health

	Factor 1:	Factor 2:	Factor 3:	Factor 4:	Factor 5:	Policies	Family	Overall
Interpersonal Sensitivity	.658**	.302**	.429**	.292**	.356**	.264**	.356**	.649**
Depression	.633**	.293**	.309**	.225**	.361**	.282*	.282**	.566**
Somatization	.258**	.051	.270**	.152**	.101	.014	.098	.234**
Age	-.285**	-.084	-.117	-.098	-.098	-.245**	-.099	-.267**

** significant at .01 level.

*significant at .05 level.

APPENDIX B – INSTITUTIONAL REVIEW BOARD APPROVAL

IRB**INSTITUTIONAL REVIEW BOARD**

Office of Research Compliance,
010A Sam Ingram Building,
2269 Middle Tennessee Blvd
Murfreesboro, TN 37129

**IRBN007 – EXEMPTION DETERMINATION NOTICE**

Tuesday, January 30, 2018

Investigator(s): Nicole Cook; Meredith Dye
Investigator(s) Email(s): nac4e@mtmail.mtsu.edu; meredith.dye@mtsu.edu
Department: Sociology

Study Title: Making the Best of It: Developing a Scale for Measurement of
Prison Adjustment of Life- Sentenced Women
Protocol ID: **18-1149**

Dear Investigator(s),

The above identified research proposal has been reviewed by the MTSU Institutional Review Board (IRB) through the **EXEMPT** review mechanism under 45 CFR 46.101(b)(2) within the research category (4) *Study involving existing data*. A summary of the IRB action and other particulars in regard to this protocol application is tabulated as shown below:

IRB Action	EXEMPT from further IRB review***	
Date of expiration	NOT APPLICABLE	
Participant Size	Existing Data	
Participant Pool	De-identified existing data from ID# 09-268	
Mandatory Restrictions	Only de-identified data from approved protocol 09-268 may be accessed/analyzed	
Additional Restrictions	None at this time	
Comments	None at this time	
Amendments	Date	Post-Approval Amendments
		None at this time

***This exemption determination only allows above defined protocol from further IRB review such as continuing review. However, the following post-approval requirements still apply:

- Addition/removal of subject population should not be implemented without IRB approval
- Change in investigators must be notified and approved
- Modifications to procedures must be clearly articulated in an addendum request and the proposed changes must not be incorporated without an approval

- Be advised that the proposed change must comply within the requirements for exemption
 - Changes to the research location must be approved – appropriate permission letter(s) from external institutions must accompany the addendum request form
 - Changes to funding source must be notified via email (irb_submissions@mtsu.edu)
 - The exemption does not expire as long as the protocol is in good standing
- IRBN007 Version 1.2 Revision Date 03.08.2016 Institutional Review Board
Office of Compliance Middle Tennessee State University
- Project completion must be reported via email (irb_submissions@mtsu.edu)
 - Research-related injuries to the participants and other events must be reported within 48 hours of such events to compliance@mtsu.edu

The current MTSU IRB policies allow the investigators to make the following types of changes to this protocol without the need to report to the Office of Compliance, as long as the proposed changes do not result in the cancellation of the protocols eligibility for exemption:

- Editorial and minor administrative revisions to the consent form or other study documents
- Increasing/decreasing the participant size

The investigator(s) indicated in this notification should read and abide by all applicable postapproval conditions imposed with this approval. [Refer to the post-approval guidelines posted in the MTSU IRB's website](#). Any unanticipated harms to participants or adverse events must be reported to the Office of Compliance at (615) 494-8918 within 48 hours of the incident.

All of the research-related records, which include signed consent forms, current & past investigator information, training certificates, survey instruments and other documents related to the study, must be retained by the PI or the faculty advisor (if the PI is a student) at the secure location mentioned in the protocol application. The data storage must be maintained for at least three (3) years after study completion. Subsequently, the researcher may destroy the data in a manner that maintains confidentiality and anonymity. IRB reserves the right to modify, change or cancel the terms of this letter without prior notice. Be advised that IRB also reserves the right to inspect or audit your records if needed.

Sincerely,

Institutional Review Board
Middle Tennessee State University

Quick Links:

[Click here](#) for a detailed list of the post-approval responsibilities.
More information on exempt procedures can be found [here](#).