

**DEPRESSION, ANXIETY AND STRESS AMONG INCARCERATED FEMALE OFFENDERS****Francois Steyn<sup>1</sup> and Brittany Hall<sup>2</sup>****ABSTRACT**

*Incarcerated female offenders have poorer mental health states compared to the general population. The present study set out to determine the levels of depression, anxiety and stress experienced by imprisoned female offenders. Through survey methods, quantitative data was obtained from 64 female offenders incarcerated at a correctional centre in Gauteng, South Africa. The questionnaire consisted of a biographical section and the Depression, Anxiety and Stress Scale. The majority of respondents reported normal to moderate levels of depression (69.8%), anxiety (68.3%) and stress (74.2%). Nearly one in three respondents showed severe to extremely severe levels of depression (30.2%) and anxiety (31.8%). Unemployment prior to incarceration, having used illegal substances in the past, previous conviction and the duration of the prison sentence showed a significant correlation ( $p < 0.05$ ) with depression, anxiety and stress. It appears that some situations in prison promote anxiety since more than half of respondents (57.8%) identified with the statement "I found myself in situations that made me so stressed that I was most relieved when they ended". The greater part of respondents had relatively high levels of education which could in part explain the results of the survey.*

**KEYWORDS:** *female offenders, corrections, mental health, effects of incarceration, special needs offenders*

**INTRODUCTION**

Until recently, the subject of female offenders has not received much attention in South Africa and there is a general void of information regarding the nature and extent of crimes committed by women. The lack of research has been ascribed to the small number of female offenders compared to male offenders (Dastile, 2011:289), as well as male dominance in academic life and the low recidivism and mundane nature of female offending (Hughes, 2005:3). Scholars are hesitant to acknowledge and engage with women's capacity to commit crime and violence because women are stereotyped as passive and nurturing human beings (Haffejee, Vetten & Greyling, 2005:41). Overall, the treatment of females in criminological research has been limited, although there have been recent increases in local evidence on the phenomenon (*cf.* Artz, Hoffman-Wanderer & Moul, 2012; Booyens & Steyn, 2013; Dastile, 2011). The historical invisibility and skewed perception of females in research foci has left an important information void for prospective and current researchers to fill.

In general, being female and between 35-49 years of age is associated with an increase in severity of mental disorders in South Africa. Depression and anxiety are both twice as prevalent in females compared to males (Kring, Davison, Neale & Johnson, 2007: 131; Sadock & Sadock, 2007:528-529,579). The prevalence of mental health problems in correctional centres and the poor mental state of incarcerated offenders is widely reported (Asberg & Renk, 2014:60; Fazel & Seewald, 2012:364; Fraser, Gatherer & Hayton, 2009:410-413; Gavin, 2014:323; Jordan, 2011:1061; Wright, Jordan & Kane, 2014:179). Evidence from a correctional centre in Gauteng showed that nearly one in three (23%) female offenders have been diagnosed by or have received treatment from a psychologist, mostly for

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depression. More than a third (36%) of female offenders have thought of suicide and 25% have attempted to end their own lives (Booyens & Steyn, 2013:14).

The present study set out to determine the levels of depression, anxiety and stress among female offenders in a correctional centre in Gauteng. The study also generated a brief profile of incarcerated female offenders and insights into their offences and prison sentences. Before the research methods and the results of the study are presented, it is worthwhile to first reflect on existing evidence and literature regarding female incarceration, the characteristics of female offenders and matters related to the mental health of imprisoned offenders.

## **FEMALE INCARCERATION**

There are roughly 10 million offenders incarcerated in correctional centres around the world (Fazel & Seewald, 2012:364; Gavin, 2014:319). The number of female offenders globally is around half a million or between two and nine percent of the total population of incarcerated offenders (Moloney, Van den Bergh & Moller, 2009:426). South Africa ranks seventh regarding the number of incarcerated offenders, outranking some countries with up to six times the proportion of offenders per population. Locally, there are roughly 348 offenders for every 100 000 people in the general population (Naidoo & Mkize, 2012:30).

Cognisant of arguments of chivalry toward female offenders in the criminal justice system, women pose a low security risk within corrections and therefore remain ideal candidates for non-custodial sentences (Department of Correctional Services [DCS] Annual Report, 2012/2013:16). In South Africa, the proportion of imprisoned female offenders fluctuates between two and three percent of the total prison population (Dastile, 2011:293; Klopper, 2012:7). In 2012/2013, the female population represented just over two percent of the 104 878 incarcerated offenders. Although the number of female offenders in South Africa is lower than in other countries, such as United States of America (USA) or the United Kingdom (UK), the number appears to be on the increase (Dastile, 2011:293; Klopper, 2012:7).

## **PROFILE OF FEMALE OFFENDERS**

Female criminals represent a socially and criminally dissimilar group to that of male offenders. Both males and females are equally likely to be found guilty of criminal offences, yet female's involvement in crime is lower than that of males (Bartlett, 2006:91). Incarcerated females have become a cause for concern based on their increasing vulnerability (Johnson & Zlotnick, 2008:371), since the majority of female offenders suffer from lifetime victimisation and illicit drug abuse (Moloney & Moller, 2009:431). Many female offenders experience extensive childhood and adulthood abuse and report numerous traumatic experiences (Green, Miranda, Daroowalla & Siddique, 2005:134; Hatton & Fisher, 2008:1305).

The table below presents the results of two South African studies regarding the biographical characteristics of female offenders. The one study was conducted by Dastile (2011) and involved 56 respondents, while the other was conducted by Booyens and Steyn (2013) among 120 incarcerated female offenders. Differences in results can be ascribed to sampling procedures, research settings and the relatively low number of respondents in both studies. Nevertheless, the results suggest female offenders to be relatively young and single with school-level education. The greater proportion of female offenders appears to have been employed prior to imprisonment.

**Table 1: Profile of incarcerated female offenders**

	<b>Dastile (2011)</b>	<b>Booyens &amp; Steyn (2013)</b>
Age (younger than 35)	82%	52%
Marital status:		
Single	61%	53%
Married	18%	15%
Divorced, separated, widowed	21%	28%
Nationality (South African)	82%	78%
Education:		
None	4%	1%
Primary	32%	9%
Secondary	48%	68%
Diploma/degree	16%	21%
Employed prior to imprisonment	57%	67%
Abuse during childhood	32%	16%

The survey conducted by Booyens and Steyn (2013:6) indicates that female offenders mainly grew up in urban/city areas (48.1%) followed by informal/township (31.6%) and rural/small town areas (20.3%). Nearly half of female offenders were raised by both parents (49.1%) and 33.3% were raised by their mothers only. Nearly half of female offenders came from low-income backgrounds (44.1%), followed by 36.6% from middle-income and 12.5% from high-income backgrounds.

As mentioned, childhood and adulthood abuse plays a significant role in the profile of incarcerated females. Dastile's study (2011:299) found that roughly one third of offenders (32%) reported histories of victimisation during their childhood. In addition, 38% of the females indicated that they experienced physical, sexual or emotional abuse during adulthood. Booyens and Steyn (2013:8) found that 16% of female offenders experienced abuse as a child. In terms of substance abuse, Dastile (2011:300) found that 16% of female offenders cited drugs or alcohol use during the commission of their offences. One in five female offenders (26%) in the study by Booyens and Steyn (2013:15) indicated that they had abused substances prior to incarceration.

The pattern of female offending is notably different to that of males. More women are involved in non-violent and economic offences such as theft or fraud (Dastile, 2010:101). Booyens and Steyn (2013:10) found that only four percent of imprisoned female offenders were involved in interpersonal crimes (assault, serious assault and murder). Recently, increasing numbers of incarcerated women had been convicted of drug-related offences such as drug trafficking or smuggling. Locally, around 12% of female offenders are incarcerated for drug-related offences (Dastile, 2011:101).

### **MENTAL HEALTH STRESSORS IN CORRECTIONAL CENTRES**

Incarceration is considered a highly stressful experience that has devastating effects on the well-being of offenders (Blackburn, 1993:275; Islam-Zwart & Vik, 2004:524). The environment and nature of correctional centres often produce psychological effects that are not conducive to the goals of rehabilitation and reducing re-offending. Instead, imprisonment negatively affects mental health and commonly produces symptoms of depression and anxiety (Gavin, 2014:322-323; Jordan, 2012:724). The experience of overcrowding, high levels of violence, injustice between inmates, lack of resources and unrest between social groups are considered to be psychologically distressing. Equally implicated are the enforced solitude, close confinement, substance misuse, insecurity concerning the future and the

monotony of regime (Fraser et al., 2009:412; Jordan, 2011:1063). Therefore, incarceration presents numerous risk factors for the onset of mental illness.

The effects of imprisonment are notably harsher for females due to their increased vulnerability, especially those with histories of abuse (Dastile, 2010:99, Johnson & Zlotnick, 2008:371). Socio-economic deprivation, mental illness and traumatic family dysfunction typify the incarcerated female experience (Khan, Hussain, Khan, Khan, Badshah & Sarwar, 2012:34; Moloney et al., 2009:426). Higher levels of stress are more likely when women have dependents and are unemployed prior to imprisonment (Mooney, Minor, Wells, Leukefeld, Oser & Tindall, 2008:687). Furthermore, many correctional centre services and operational processes have historically been geared towards male inmates. Due to the fact that women universally represent a small proportion of incarcerated offenders, gender-specific concerns are not a priority for correctional facilities. Subsequently, the treatment of female offenders is not aimed towards their unique nature and needs (Green et al., 2005:135; Moloney et al., 2009:428).

Various operational procedures such as evasive searches, privacy violations and verbal belittlement characterise many female correctional facilities. The processes are considered highly stressful and psychologically harmful to females (Moloney et al., 2009:428). Not only is the environment potentially damaging to mental health, but equally so are incidents of victimisation and histories of abuse.

#### **NATURE OF MENTAL ILLNESS IN CORRECTIONAL ENVIRONMENTS**

Along with high rates of previous victimisation and histories of abuse, many female offenders have a higher lifetime prevalence of drug abuse and substance use disorder (SUD) than the general population (Moloney & Moller, 2009:432). Incarcerated females furthermore present higher levels of major depressive disorder (MDD) and post-traumatic stress disorder (PTSD) than the general public (Islam-Zwart, Vik & Rawlins, 2007:237), with a significantly high level of co-morbidity of MDD and SUD (Moloney et al., 2009:428). It is estimated that one in five female inmates are diagnosed with some form of mental disorder (Khan et al., 2012:34). In an international study of mental illness, the pooled prevalence of depression in female correctional centres was 14.1%. In addition, a higher prevalence of MDD and depressive symptoms was reported in low income countries, which was significant in the female samples (Fazel & Seewald, 2012:364-366). The prison environment may worsen pre-existing problems in women, especially those who misuse drugs (Celinska & Siegel, 2010:3). The increased numbers of depression and SUD among female offenders has serious consequences, interfering with their ability to cope with stressors both inside and outside the correctional centre. Consequently, the presence of depression within the female offender population has negative implications for the recidivism rates (Johnson & Zlotnick, 2008:371).

The poor mental health among female offenders has a number of negative consequences, including an impaired ability to follow rules, increased disciplinary problems, as well as self-mutilation and suicide attempts (Hatton & Fisher, 2008:1306). Psychological distress in the form of self-harm is higher among females than males, especially upon initial incarceration (Islam-Zwart et al., 2007:241). Ultimately, the nature of female suffering means that many conditions that are commonly present with depression are left undiagnosed and untreated. Alarming, many women in correctional centres suffer mental illness yet they do not receive proper mental health care (Fraser et al., 2009:410). The high levels of poor mental health in the female incarcerated population was recognised by the World Health Organisation, highlighting that most centres do not adequately attend to mental health concerns (Moloney & Moller, 2009:431). Nationally, only 16.6% of inmates were involved in psychological support services during 2013/2014 within correctional centres (DCS Annual Report, 2013/2014:48). Overcrowding and a shortage of psychological services are noted as

factors which negatively impact the level and quality of service provided. With an estimated psychologist offender ration of 1:1 955, the provision of adequate psychological services remains strained (DCS Annual Report, 2013/2013:27,70). In totality, substance misuse, poor conditions, as well as the stressful environment of correctional centres present an overall bleak picture for the mental health of any offender.

Stress is a precursor to the sense of hopelessness that develops within the incarcerated female's psyche. Generally, women perceive stressors as less controllable than men do and therefore use more escape strategies (e.g., substance misuse) as coping mechanisms (Asberg & Renk, 2014:59). The restricted and limited nature of visitation with children produces stress and psychological damage in mothers who are incarcerated (Celinska & Siegel, 2010:3; Moloney et al., 2009:429). Incarcerated mothers consider the isolation from their children as the hardest aspect to cope with while imprisoned, entailing overwhelming stress and grief (Celinska & Siegel, 2010:3). Mostly, mothers stress about their perceived reduced parenting skills and competency, which is severely restricted by imprisonment. Therefore, the stress experienced by mothers impacts negatively on their mental health and well-being (Celinska & Siegel, 2010:3-6).

The first study to determine the prevalence of mental disorders in South African correctional centres was conducted by Naidoo and Mkize in 2010. The research was conducted at a correctional centre in Durban and found trends similar to international research. Commonly found disorders included MDD, PTSD, SUD and obsessive compulsive disorder. Alarmingly, a large number of offenders with psychosis or depression were not treated. Most of the offenders showed a high prevalence of disorders including depression and anxiety, with the most widespread disorder being SUD. In addition, 55% of all offenders who presented a disorder, also exhibited SUD as a co-morbid condition. A noteworthy finding was that all of the offenders diagnosed with depression and PTSD, were done so by the study, hence none were previously diagnosed by mental health care services within the correctional facility (Naidoo & Mkize, 2012:32-34).

## **THEORETICAL FRAMEWORK**

Owing to the fact that female criminality and mental health differ significantly from that of males, it would be erroneous to apply male-centred theories to the present study. Much has been theorised using male research participants, consequently adding to the feminist critique of traditional Criminology. In order to appreciate and acknowledge the difference between males and females in crime, the relational theory (or relational model of self) by Jean Baker Miller (1976) is applied so as to describe female psychological development (Covington, 1998:4). According to the theory, men and women differ in how they form their self-identity. Women do so through connections and attachments with others, while men prefer individuation (Van Voorhis & Salisbury, 2014:294). Separation and isolation sometimes trigger growth and maturity which typically describes the experience of males. On the other hand, a woman's motivation is to develop a connection with others, which in turn affects their self-worth and self-perception. Hence connection, not separation, is the guiding principle for women's growth (Covington, 1998:4). Mutuality and empathy empower women through others and consequently produce five psychological outcomes: 1) increased zest and vitality, 2) empowerment to act, 3) knowledge of self and others, 4) self-worth and 5) a desire for more connection.

Conversely, the outcomes of disconnections result in a 'depressive spiral' including: 1) diminished zest or vitality; 2) disempowerment; 3) lack of clarity and confusion; 4) diminished self-worth; and 5) a turning away from relationships (Covington, 1998:5; Van Voorhis & Salisbury, 2014:320). The Relational Theory is applied in the criminal justice system because attention must be paid to the unique profile and nature of female offenders.

The correctional environment should not produce the same growth-hindering or violating relationships that are found outside of the correctional centre, often in abusive relationships. When women feel psychological isolation, as a result of failed attempts to connect to others, they will feel condemned to further isolation and perceive the situation as unchangeable. The sense of isolation is highly correlated with substance abuse as a means of coping with the intense feelings of depression and the sense of hopelessness (Covington, 1998:5). Additionally, the lack of empathy for the self that develops from unsatisfying or non-existent relationships may be a route towards the poor mental health among incarcerated women (Van Voorhis & Salisbury, 2014:321). The correctional system is directly implicated in the disconnection from significant others that is experienced by women.

The authors are fully aware of the complexities involved with theoretical understandings and explanations of depression, anxiety and stress. The Relational Theory is presented as one possible framework to interpret the present research results, specifically so in the context of absent meaningful relationships and feelings of hopelessness. A major shortfall of the Relational Theory, which the authors acknowledge, is the assumption that women mainly rely on proximal relationships for personal development and growth, which to a large extent negates notions of individuality and internal motivations and drives.

## **RESEARCH METHODS**

A quantitative strategy was deemed necessary to numerically determine and express the levels of depression, anxiety and stress among female offenders in a South African prison. Toward this end, a descriptive survey design was opted for to gather the necessary information from female offenders within a short period of time. Due to offenders' involvement in prison activities and in particular education and rehabilitation programmes, data gatherers were afforded only two days (and three hours at a time) to conduct the survey. In addition, only five data gatherers were allowed into the correctional centre on each occasion. Coupled with the logistics of escorting female prisoners to the interview area, probability sampling procedures had to be abandoned in favour of interviewing as many female prisoners as possible in the allocated time. Therefore, voluntary sampling was employed where correctional officials, in particular an educationist, informed the female inmates about the study and requested them to participate in the survey if they so wished. A total of 64 female prisoners were interviewed from a study population of 180, resulting in a participation rate of 37 percent.

The correctional centre where primary data was gathered is a dedicated female unit which forms part of a larger prison complex in Gauteng. It is one of the 86 mixed correctional centres in South Africa. The facility was selected for the present study based on the size of the female offender population, traveling time to and from the prison and the researchers having worked there in the past. Evidence shows that the vast majority of female offenders at the facility have contact with family members by means of visits and/or telephone calls (Booyens & Steyn, 2012:17). The prison offers Adult Basic Education and Training (ABET) and mainstream education, while offenders can register for higher and tertiary education. Various skills development and rehabilitation programmes are available to offenders, including The Anger Management Programme, Crossroads Correctional Programme, Substance Abuse Programme and New Beginnings Orientation Programme, each with a specific focus on correcting offending behaviour and empowering offenders. Although data is not readily available for individual correctional centres, national figures show that more than 60% of offenders were involved in correctional rehabilitation programmes, including psychological and social programmes during 2013/2014 (Department of Correctional Services, 2014:28, 48).

The data gatherers were trained on how to conduct survey interviews and were informed of the rules and regulations of the correctional centre. Due to concerns about their literacy levels, data gathering took the form of face-to-face interviews with imprisoned female offenders (Maxfield & Babbie, 2012:175). The survey instrument consisted of two sections. The first part entailed predominantly closed-ended questions to obtain biographical and background information about respondents and the offences they had committed. The second section consisted of the Depression, Anxiety and Stress Scale (DASS) which comprised of 42 closed-ended questions. Each emotional state contains 14 items divided into subscales of two to five items with similar content (Psychology Foundation of Australia, 2014). Respondents had four options of replying to each statement as they experienced the statement in the past week prior to data collection, namely 'Not at all', 'Sometimes', 'Often' and 'Most of the time'. Scores for depression, anxiety and stress were calculated by summing up the responses for the relevant items. The total scores were then divided in terms of the categories of normal, mild, moderate, severe and extremely severe.

**Table 2: Characteristics of high scorers on each scale**

<b>Depression</b>	<b>Anxiety</b>	<b>Stress</b>
Self-disparaging Dispirited, gloomy, blue Convinced that life has no meaning or value Unable to experience enjoyment or satisfaction Unable to become interested or involved Slow, lacking in initiative	Apprehensive, panicky Trembly, shaky Awareness of dryness of the mouth, breathing difficulties, pounding of the heart, sweatiness of the palms Worried about performance and possible loss of control	Over-aroused, tense Unable to relax Touchy, easily upset Irritable Easily startled Nervy, jumpy, fidgety Intolerant of interruption or delay

(Source: Psychology Foundation of Australia, 2014)

It is important to note that the DASS42 is used primarily in research, ultimately to distinguish between the three related states of depression, anxiety and stress vis-à-vis the nature, causes and mechanisms of emotional disturbance (Psychology Foundation of Australia, 2014). The purpose of the DASS42 is to determine the severity of the core symptoms of depression, anxiety and stress. The instrument can be used by non-psychologists, although decisions regarding intervention must be made by professionals who are qualified to clinically identify symptoms and appropriate treatment. Therefore, the present study only reports on the levels of depression, anxiety and stress among incarcerated female offenders as determined by the use of the DASS42. The results and recommendations of the study have been communicated to the Department of Justice and Correctional Services (Directorate: Risk Profile Management) for further consideration and action.

The researchers acknowledge that the DASS42 is one of many instruments that can be used to determine the mental health and wellbeing of a variety of study populations. A shortfall of the DASS42 is that it fails to account for influencing variables, which in prison contexts, amount to realities such as life experiences, prison routines, relationship with fellow inmates and prison staff, developments in offenders' family life outside prison, etc. In the context of correctional centres, such variables are generally categorised in terms of the Importation and Functionalist Models. The Importation Model includes pre-incarceration characteristics which influence adjustment to life in prison (including pre-prison stressors and demographic variables), while the Functionalist Model refers to adaptation as a function of the correctional environment (*cf.* Foster, 2012:222; Solinas-Saunders & Stacer, 2012:285).

The present study did not measure influencing variables apart from the basic biographical data.

The data was coded manually and captured in Microsoft Excel after which it was exported to the Statistical Package for the Social Sciences (version 22) (IBM Corp, 2014). In addition to the descriptive data, inferential analyses were undertaken to identify possible relationships between biographical variables and the levels of depression, anxiety and stress. Toward this end, inspection of the histograms with normality curves and tests of normality (Kolmogorov-Smirnov  $Z$ ) revealed that the data was not normally distributed. The outcome thus necessitated the use of non-parametric tests to determine significant differences, in particular the Mann-Whitney  $U$  test for which effect sizes ( $r$ ) were calculated. Because of the sample size ( $n=64$ ), the categories of normal and mild, and severe and extremely severe were combined to facilitate statistical analysis. The survey yielded Cronbach's alpha coefficients at 0.906 for the depression scale, 0.808 for the anxiety scale and 0.881 for the stress scale, all of which are above the acceptable level of 0.7 thus indicating a high degree of internal reliability of the DASS42 (Field, 2009:673). A shortened version of the DASS42, namely the DASS21, has been used in other South African studies, including among police officers (Papier, 2012) and secondary school learners (Masureik, Roman, Roman & Toefy, 2014) without any challenges reported. Minor changes were made to some of the statements posed in the DASS42 in order to strengthen face validity and facilitate local understandings, for example the word 'unhappy' was added to the statement 'I felt down-hearted and blue'.

The study adhered to the standard ethical considerations applicable to research involving human subjects. Signed informed consent was obtained from each respondent prior to the interview and respondents were informed that they could cease participation at any time during the interview. Respondents were assured that all data would be treated confidentially. It was important that respondents experienced no psychological harm as a result of the interview. Respondents were debriefed after the interview and had the option to be referred to a psychologist should they have the need for professional support. The study was approved by the Ethics Committee of the Faculty of Humanities (University of Pretoria) and the Research Directorate of the Department of Justice and Correctional Services.

## RESULTS

### Biographical information

The mean age of respondents was 36.2 years with a standard deviation of 9.2 years. More than half of the respondents ( $n=36$ ; 56.3%) were younger than 36 years of age and the greater proportion were Black/African ( $n=44$ ; 69.8%). Three in five respondents ( $n=38$ ; 69.8%) were single and one in four respondents ( $n=16$ ; 26.2%) held a post-school qualification (Table 3). Black/African respondents were more likely to come from low ( $n=18$ ; 40.9%) and middle ( $n=23$ ; 52.3%) income households compared to White/Caucasian from middle ( $n=9$ ; 64.3%) and high ( $n=5$ ; 35.7%) income backgrounds ( $p = 0.001$ ;  $r = -0.43$ ).

**Table 3: Age, population group, relationship status and education of respondents**

	<b>n</b>	<b>%</b>
<b>Age:</b>		
≤ 25	3	4.7
26-30	21	32.8
31-35	12	18.2
36-40	8	12.5
41-45	10	15.6
≥ 46	10	15.6



<b>Population group:</b>		
Black/African	44	69.8
Asian/Indian	2	3.2
Mixed race	3	4.8
White/Caucasian	14	22.2
<b>Relationship status:</b>		
Single	38	59.4
Partnered	1	1.6
Married	6	9.4
Divorced	11	17.2
Widowed	8	17.2
<b>Qualification:</b>		
None	3	4.9
Grade 8	1	1.6
Grade 10	5	8.2
Grade 11	10	16.4
Grade 12	26	42.6
Diploma/degree	16	26.2

The greater proportion of respondents (n=50; 78.1%) were South African citizens, while roughly one in five (n=14; 21.9%) were non-South African. The majority of respondents (n=53; 82.8%) had children of whom 60.4% (n=32) had children younger than 18 years of age (n=32). Nearly half of respondents (n=31; 48.4%) grew up in urban (city) areas, followed by rural/small town areas (n=19; 29.7%) and informal settlements (townships) (n=14; 21.9%). The greater part of respondents (n=27; 43.5%) were raised by both their parents and nearly a third (n=19; 30.6%) were raised by their mothers only. One in five respondents (n=13; 21.0%) was raised by relatives and three (4.8%) by their fathers only.

Slightly more than half of respondents (n=35; 54.7%) came from middle-income backgrounds, followed by those from low (n=21; 32.6%) and high (n=8; 12.5%) income backgrounds. The majority of respondents (n=46; 71.9%) were employed prior to their arrest (and subsequent incarceration), with half (n=23; 50.0%) having had permanent employment, 37.0% (n=17) having been temporary employed and 13.0% (n=6) having been self-employed.

More than half of respondents (n=37; 57.8%) had seen someone (e.g. a doctor, psychologist, psychiatrist or traditional healer) about a mental health concern. Roughly one in six respondents (n=11; 17.2%) admitted to having used an illegal substance in the past and 3.1% (n=2) stated that they continued to use an illegal substance while in prison. There was a significant association between having consulted someone about a mental health problem and having used an illegal substance in the past, where all respondents who had used an illegal substance had consulted someone about a mental health concern ( $p=0.002$ ;  $r=-0.38$ ).

### **Offence and prison sentence**

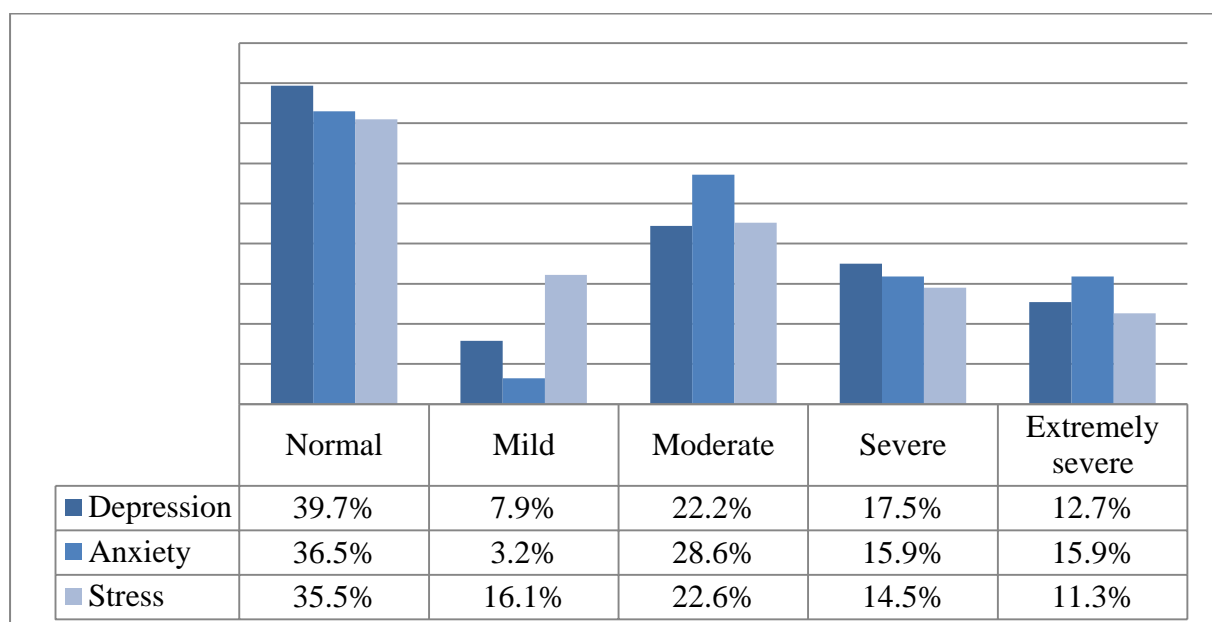
The majority of respondents (n=52; 81.3%) served a prison sentence for property crimes and roughly one in five (n=12; 18.8%) for interpersonal offences. More than a third of respondents (n=24; 37.5%) served a prison sentence of between six and ten years (Table 4). One in four respondents (n=16; 25.0%) admitted that they had been found guilty for a previous offence.

**Table 4: Type of offence, duration and time served of prison sentence**

	n	%
<b>Offence:</b>		
Theft	19	30.2
Fraud	17	27.0
Drug dealing/possession	11	17.5
Murder/attempted murder	10	15.9
Robbery	4	6.3
Assault	2	3.2
<b>Duration of sentence:</b>		
≤ 1 years	7	10.9
2-5 years	19	29.7
6-10 years	24	37.5
≥ 11 years	14	21.9
<b>Percentage of sentence served:</b>		
≤ 10%	9	14.1
11-20%	10	15.6
21-30%	13	20.3
31-40%	12	18.8
41-50%	8	12.5
≥ 50%	12	18.8

**Depression, anxiety and stress**

From a broad perspective, the results show that the greater part of respondents present normal to moderate levels of depression, anxiety and stress (Figure 1). More specifically, slightly more than a third of the respondents reported normal levels of depression, anxiety and stress, while roughly one in five experienced moderate levels of depression, anxiety and stress. Nearly one in three respondents presented severe to extremely severe levels of depression and anxiety.

**Figure 1: Depression, anxiety and stress amongst respondents**

The responses to the detailed questions posed in the DASS42 instrument provided further insights into respondents' experiences of depression, anxiety and stress. In terms of depression, the greater part of respondents replied 'not at all' to feelings of: 'had nothing to look forward to' (n=30; 46.9%); 'lost interest in just about everything' (n=32; 50.0%); 'life wasn't worthwhile' (n=35; 54.7%); 'nothing in the future to be hopeful for' (n=45; 70.3%); 'life was meaningless/without purpose' (n=39; 60.9%); and 'not motivated to do things' (n=40; 60.2%). Nevertheless, nearly half of the respondents (n=31; 48.4%) replied 'often' and 'most of the time' to the statement "I felt sad and depressed" (Table 5).

Regarding anxiety, more than half of respondents replied 'not at all' to the statements of having experienced 'dryness in my mouth' (n=38; 59.4%); 'difficulty breathing' (n=42; 65.6%); 'shakiness' (n=35; 54.7%); and 'difficulty swallowing (tight throat feeling)' (n=44; 68.8%) (Table 6). However, it appears that some situations in prison can promote anxiety, since more than half of the respondents (n=37; 57.8%) replied 'often' and 'most of the time' to the statement "I found myself in situations that made me so stressed that I was most relieved when they ended". In a similar vein, a third of respondents (n=22; 34.4%) replied 'often' and 'most of the time' to the statement "I was worried about situations in which I might panic and make a fool of myself".

In terms of responses to the statements on stress, roughly half of respondents replied 'often' and 'most of the time' for "getting upset by small irrelevant things" (n=31; 48.4%); "getting impatient when I was delayed in any way" (n=37; 57.8%); and "I found I was very irritable" (n=32; 50.0%) (Table 7). However, two in five respondents indicated 'not at all' to the statement "I felt I was using a lot of nervous energy" (n=29; 45.3%).

The greater part of biographical variables (age, population group, nationality, having children, type of area grown up in, household status, offence committed and having seen someone for a mental health problem) showed no significant association with the levels of depression, anxiety and stress. Having worked for an income prior to imprisonment was significantly associated with levels of stress ( $p=0.032$ ;  $r=-0.26$ ); respondents who had not been employed were more likely to report severe/extremely severe levels of stress (n=8; 44.4%) compared to respondents who had been employed (n=8; 18.2%). Anxiety ( $p=0.018$ ) and stress ( $p=0.024$ ) showed significant associations with the duration of prison sentences. Respondents who served sentences of one year and less (n=4; 57.1%) and between two and five years (n=8; 42.1%) were more likely to report severe/extremely severe levels of anxiety compared to respondents who served six to ten years (n=5; 20.8%) and eleven years or more (n=3; 23.1%). Similarly, respondents who served six to ten years (n=17; 73.9%) and eleven years or more (n=8; 61.5%) were more likely to report normal/mild levels of stress compared to respondents who served one year or less (n=2; 28.6%) and between two and five years (n=5; 26.3%).

Furthermore, respondents who had been found guilty of another offence (i.e. prior to the current prison sentence) were more likely to report severe/extremely severe levels of anxiety (n=10; 62.5%) compared to respondents without a previous conviction (n=10; 21.3%) ( $p<0.001$ ;  $r=-0.43$ ). Similarly, respondents who had been found guilty of another offence were more likely to report severe/extremely severe levels of stress (n=7; 46.7%) compared to respondents without a previous conviction (n=9; 19.1%) ( $p=0.017$ ;  $r=-0.29$ ). Lastly, respondents who had used an illegal substance in the past were more likely to report severe/extremely severe levels of anxiety (n=6; 54.5%) compared to respondents who indicated that they have never used an illegal substance (n=14; 26.9%) ( $p=0.006$ ;  $r=-0.34$ ). Similarly, respondents who had used an illegal substance in the past were more likely to report severe/extremely severe levels of stress (n=6; 60.0%) compared to respondents who indicated that they have never used an illegal substance (n=10; 19.2%) ( $p=0.009$ ;  $r=-0.32$ ).

**Table 5: Responses regarding items on depression**

	Not at all		Sometimes		Often		Most of the time		M	SD
	n	%	n	%	n	%	n	%		
I couldn't seem to experience any positive feeling	26	40.6	16	25.0	10	15.6	12	18.8	1.13	1.148
I just couldn't seem to get started or going	26	41.3	14	22.2	15	23.8	8	12.7	1.08	1.082
I felt that I had nothing to look forward to	30	46.9	13	20.3	11	17.2	10	15.6	1.02	1.134
I felt sad and depressed	18	28.1	15	23.4	13	20.3	18	28.1	1.48	1.182
I felt that I lost interest in just about everything	32	50.0	15	23.4	8	12.5	9	14.1	0.91	1.094
I felt that I wasn't worth much as a person	25	39.1	18	28.1	7	10.9	14	21.9	1.16	1.171
I felt that life wasn't worthwhile	35	54.7	8	12.5	14	21.9	7	10.9	0.89	1.100
I couldn't seem to get enjoyment out of the things I did	30	46.9	10	15.6	10	15.6	14	21.9	1.13	1.228
I felt down-hearted and blue/unhappy	11	17.2	26	40.6	12	18.8	15	23.4	1.48	1.039
I was unable to get excited about anything	28	43.8	14	21.9	9	14.1	13	20.3	1.11	1.183
I felt I was fairly worthless	29	45.3	14	21.9	9	14.1	12	18.8	1.06	1.167
I could see nothing in the future to be hopeful for	45	70.3	8	12.5	3	4.7	8	12.5	0.59	1.050
I felt that life was meaningless/without purpose	39	60.9	7	10.9	7	10.9	11	17.2	0.84	1.185
I was not motivated to do things	40	62.5	6	9.4	10	15.6	8	12.5	0.78	1.119

**Table 6: Responses regarding items on anxiety**

	Not at all		Sometime s		Often		Most of the time		M	SD
	n	%	n	%	n	%	n	%		
I experienced dryness in my mouth	38	59.4	12	18.8	9	14.1	5	7.8	0.70	0.987
I had difficulty breathing	42	65.6	12	18.8	3	4.7	7	10.9	0.61	1.002
I had a feeling of shakiness	35	54.7	16	25.0	8	12.5	5	7.8	0.73	0.963
I found myself in situations that made me so stressed that I was most relieved when they ended	11	17.2	16	25.0	17	26.6	20	31.3	1.72	1.091
I felt dizzy/faint	39	60.9	13	20.3	8	12.5	4	6.3	0.64	0.932
I sweat unusually in the absence of high temperatures or physical activity	39	60.9	7	10.9	8	12.5	10	15.6	0.83	1.162
I felt scared without any good reason	34	53.1	13	20.3	10	15.6	7	10.9	0.84	1.057
I had difficulty swallowing (tight throat feeling)	44	68.8	9	14.1	5	7.8	6	9.4	0.58	0.989
I was aware of the beating of my heart without any physical activity	26	40.6	26	40.6	3	4.7	9	14.1	0.92	1.013
I felt I was close to panic	34	54.0	13	20.6	9	14.3	7	11.1	0.83	1.056
I felt that I would be unable to handle a small task	29	45.3	13	20.3	8	12.5	14	21.9	1.11	1.210
I felt terrified/fearful	30	46.9	17	26.6	8	12.5	9	14.1	0.94	1.082
I was worried about situations in which I might panic and make a fool of myself	21	32.8	21	32.8	7	10.9	15	23.4	1.25	1.155
I was trembling (e.g. in hands)	38	59.4	11	17.2	10	15.6	5	7.8	0.72	1.000

**Table 7: Responses regarding items on stress**

	Not at all		Sometimes		Often		Most of the time		M	SD
	n	%	n	%	n	%	n	%		
I found myself getting upset by small irrelevant things	9	14.1	24	37.5	15	23.4	16	25.0	1.59	1.019
I tend to over react in situations	28	43.8	16	25.0	8	12.5	12	18.8	1.06	1.153
I found it difficult to relax	21	32.8	16	25.0	7	10.9	20	31.3	1.14	1.244
I found myself getting upset rather easily	24	37.5	11	17.2	11	17.2	18	28.1	1.36	1.252
I felt that I was using a lot of nervous energy	29	45.3	10	15.6	11	17.2	14	21.9	1.16	1.224
I found myself getting impatient when I was delayed in any way	19	29.7	8	12.5	11	17.2	26	40.6	1.69	1.283
I felt that I was emotionally oversensitive or touchy	16	25.0	20	31.3	13	20.3	15	23.4	1.42	1.110
I found it hard to wind down/un-wind/de-stress	25	39.1	15	23.4	10	15.6	14	21.9	1.20	1.184
I found that I was very irritable	17	26.6	15	23.4	12	18.8	20	31.3	1.55	1.194
I found it hard to wind down after something upset me	23	35.9	11	17.2	14	21.9	16	25.0	1.36	1.213
I found it difficult to deal with interruptions to what I was busy with	19	29.7	15	23.4	9	14.1	21	32.8	1.50	1.234
I found I was in a state of nervousness/tension	26	41.3	17	27.0	9	14.3	11	17.5	1.08	1.126
I was intolerant/frustrated with anything that kept or interrupted me from getting on with what I was doing	13	20.3	17	26.6	12	18.8	22	34.4	1.67	1.155
I felt annoyed	20	31.7	23	36.5	7	11.1	13	20.6	1.21	1.109

**DISCUSSION**

The profile of imprisoned female offenders generated by the study, corresponds to a large extent with existing local evidence. Female offenders are relatively young, single, have children and have been convicted of an economic offence. Three-quarters of respondents (74.7%) served prison sentences for theft, fraud or substance-related offences. More than half of the respondents (59.4%) were serving sentences of six years or longer. A noteworthy observation from the literature and the results is that the greater proportion of female offenders had been employed prior to imprisonment. The phenomenon has been explained by some women committing economic offences in their work environment, usually in small amounts over an extended period of time and for altruistic motivations, for example to supplement their (meagre) income to support their children or other dependents (*cf.* Islam, Banarjee & Khatun, 2014).

It is important to take note of three findings which differ substantially from previous South African surveys on incarcerated female offenders. Firstly, although offenders generally have lower levels of education than the general population (Dastile, 2011:297), the female offenders in the present study had relatively high levels of education, with 42.6% having completed Grade 12 and one in four (26.2%) having obtained a diploma or degree. Secondly, 57.8% of respondents had seen someone about a mental health concern compared to the 23% reported by Booyens and Steyn (2013:14). Thirdly, more than half of respondents in the present survey (54.7%) came from middle-income backgrounds, which is higher than the 36.6% recorded by Booyens and Steyn (2013:6). These three variables are atypical of the general profile of offenders and could have resulted from the voluntary sampling strategy followed. Therefore, the findings should be read against the backdrop of the respondents' biographical make-up, which corresponds to both importation and functionalist perspectives of mental health in prison settings.

The greater proportion of respondents presented normal to moderate levels of depression (69.8%), anxiety (68.3%) and stress (74.2%). The survey further revealed high levels of hopefulness, meaning and motivation among respondents, suggesting that female offenders cope relatively well with the stressors associated with life in prison. It is argued here that the level of education and having sought help for mental health concerns could play a role in the somewhat low levels of depression, anxiety and stress in the group of female offenders who participated in the study. In addition, these women, especially those serving long sentences, could have adjusted to life in and the environment of the correctional centre. Despite the positive results, roughly one in three respondents experienced severe to extremely severe levels of depression, anxiety and stress. The characteristics associated with these conditions – among others, a lack of interest and involvement, worrying and intolerance – may negatively influence rehabilitation and reintegration initiatives aimed at incarcerated female offenders. However, a definite profile of female offenders who suffered from severe depression, anxiety and stress is not forthcoming and could be ascribed to the small sample size of the study.

The survey confirms that offenders who have been unemployed prior to imprisonment presented higher levels of stress (Mooney et al., 2008:687), possibly due to concerns of work prospects after release from prison. The same reason could apply to those female offenders with previous convictions since they experienced significantly higher levels of stress and anxiety than first-time offenders. Enculturation to life in prison appears to influence mental health, since female offenders with shorter-term prison sentences experienced significantly higher levels of anxiety and those with longer-term sentences presented lower levels of stress. Illegal substances are often used as a coping mechanism and it is not surprising that female offenders who had used illegal substances in the past were significantly more likely to

experience higher levels of anxiety and stress. The results further suggest that there are situations in correctional centres which fuel anxiety, stress and intolerance in offenders.

The Relational Theory asserts that women form their self-identity through connections and attachments (Van Voorhis & Salisbury, 2014:294). Being imprisoned undeniably disconnects female offenders from meaningful relationships with their families, friends and in particular, their children (Celinska & Siegel, 2010:3). One would therefore, expect imprisoned female offenders to experience high levels of depression and stress, yet the results of this study suggest the opposite. With evidence of regular contact with their families in mind (Booyens & Steyn, 2012:17), it is proposed that many of the female offenders who participated in the research, secured additional means and connections to form and strengthen their self-identities, especially through education. Engaging in learning activities, albeit at school or post-school level, provides female offenders opportunity to connect with others, which in turn has the potential to positively affect self-worth and self-perception, possibly even more so in the context of achieving academic success. These women could consider their immediate situation of isolation as changeable by connecting with others through education. Education may well foster meaningful relationships and keep female offenders collectively focused on longer-term goals, while also counteracting the stressors associated with the routine nature of life in prison. Against this backdrop, it is not surprising that the greater part of respondents had something to look forward to, considered life meaningful and viewed the future as hopeful.

As mentioned before, the authors acknowledge the complexity of understanding and explaining mental health in correctional settings given the multiple variables affecting depression, anxiety and stress. The present study and the attempt at a simplistic theoretical explanation represent a small step towards an understanding of the mental health of incarcerated female offenders.

## **RECOMMENDATIONS**

It is recommended that newly incarcerated female offenders be screened by psychologists for potential mental health disorders. Once professionally assessed, offenders should be diagnosed and treated accordingly. Additionally, correctional officials must understand female offenders' vulnerability to poor mental health and the uniqueness of the female psyche compared to that of males amid the negative prison environment and associated stressors. Therefore, correctional services need to gear programmes and treatment according to the nature and needs of women. Lastly, stress-inducing situations in correctional centres should be identified and managed appropriately.

## **LIMITATIONS AND FUTURE RESEARCH**

The present results are based on a relatively small number of female offenders and generalisations to other populations and correctional settings should be done with caution. Due to the fact that no comparative data was obtained, conclusions could not be drawn regarding the development of poor mental health as a result of imprisonment. A longitudinal study may be beneficial in order to determine baseline mental health functioning upon offenders' arrival into the correctional centres. Furthermore, larger studies with probability sampling procedures should seek to determine correlations between mental health and biographical variables in local settings. Additional biographic variables should also be considered to correlate mental health with female pathways to criminality, as well as pathways to poor mental health development. The importation and functionalist models should inform future research in order for instruments to account for variables which could impact on mental health outcomes.



Research is needed to determine whether certain psychological disorders and symptoms are correlated to the percentage of time served by offenders in order to direct programmes and services accordingly. Lastly, the present study did not explore histories of abuse among incarcerated female offenders. Local (Booyens & Steyn, 2013:8; Dastile, 2011:299) and international (Green et al., 2005:134; Hatton & Fisher, 2008:1305) evidence shows that female offenders experience disproportionate levels of abuse as children and adults, which has important bearings on mental health states. Future research may find important implications for prison services by investigating physical, sexual and psychological abuse in female offenders and its effect on mental health functioning.

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