PERCEIVED SOCIAL SUPPORT, AGGRESSION, AGE AND REPEAT OFFENDING AS PREDICTORS OF COPING AMONGST MALE MAXIMUM-SECURITY OFFENDERS

by

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DEDICATION

This mini dissertation is dedicated to my angel in heaven, my mother, Princess Nomusa Gwambe.

You are dearly missed, and thank you for being an inspiration to me.

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

Chapter one provides an overview and introduction of the research topic through the discussion of the background of the study, problem statement and research aim. Subsequently an outline of the research questions and a discussion of the research methodology, including the research design, research participants, sampling techniques, data collection and data analyses will be discussed. Lastly, ethical considerations, the study's value, and the study's fundamental concepts will be clarified, along with an outline of the structure of the dissertation.

1.2 Background to the Study

Despite the introduction of the White Paper on Corrections in South Africa (2005) that aimed to change the approach to corrections from the previously punitive model to one more focused on rehabilitation and reintegration, correctional centres are still characterised as strict, rigid, and structured non-therapeutic environments that increase the risk for mental health concerns (Jordaan, 2014; Mansoor et al, 2015; Navarro et al., 2013; Weightman et al., 2020). Incarcerated offenders are often confronted with numerous challenges whilst incarcerated, including the absence and separation from family and loved ones, the threat of violence and victimisation, forced sex, overcrowding, exploitation, gang activities, loss of autonomy and perceptual control, ill health, financial incapacitation and lack of activity and privacy (Combalbert et al., 2018; Gear, 2007a, 2007b, 2008, 2010; Hampton, 2012; Mansoor et al, 2015; Reid & Listwan, 2018). This extreme deprivation may damage an offender's sense of self and identity, which may force offenders to search for maladaptive coping strategies that may have a detrimental impact on them as they may reinforce negative

behaviour (Choudhry et al., 2019). Thus, there is little doubt that incarceration can be considered a stressful and unpleasant experience that causes great psychological strain (Combalbert et al., 2018; Kovacs et al., 2019; Mefoh, 2014; Van Harrevald et al., 2007). Therefore, coping is necessary for offenders (Mefoh, 2014; Van Harrevald et al., 2007) who must learn to adapt and adjust to a stressful environment and survive the challenges of incarceration (Agbakwuru & Awujo, 2016; Chahal et al., 2016).

Coping refers to a combination of cognitive and behavioural strategies that the individual uses to manage stressful problems or situations (Compas et al., 2017; LaCourse et al., 2019; Shulman & Cauffman, 2011; LaCourse et al., 2019). Coping strategies identified in the offender population tend to be maladaptive (Chubaty, 2001; Gullone et al., 2000; Power et al., 2021; Van Hooren et al., 2018) and include avoidance, suppression, denial, institutional misconduct, aggression, , disengagement, social withdrawal and momentary relief from boredom noise and lack of privacy through the use of violence with little thought to consequences(Chahal et al., 2016; Chubaty, 2001; Compas et al., 2017; Crewe et al., 2020; Hochester & DeLisi, 2005; Rocheleau, 2013). Despite aggression being a maladaptive coping strategy in the correctional environment, it can be used to resolve conflict, emphasise dominance over other offenders, help offenders avoid the possibility of being victimised and give offenders a sense of empowerment in an environment that renders them powerless (Camlibel et al., 2021; Chahal et al., 2016; Ireland, 2002; Michalski, 2017; Ricciardeli, 2014; Skowronski & Talik, 2018). Aggressive offenders, however, tend to spend more time in solitary confinement in an effort to discipline and prevent harm (Salerno & Zgoba, 2020). Thus, this supports the above rationale that aggression is a maladaptive coping strategy. Maladaptive coping may lead to several consequences for offenders, such as substance abuse and the deterioration of physical and mental health (i.e., depression, anxiety, suicidal ideation, etc.) (Dye, 2010; Gullone et al., 2000; Hardianti et al, 2020).

Adaptive coping strategies (i.e., problem-solving, emotion-focused and social support) amongst offenders tend to reduce emotional and psychological stressors, assist offenders in adjusting to the correctional environment, enhance offenders' chances of surviving in the correctional environment and increase self-esteem (Agbakwuru & Awujo, 2016; Haradianti et al., 2020; McMurran & Christopher, 2009; Picken, 2012; Rocheleau, 2015; Santi et al., 2020; Shulman & Cauffman, 2011; Zamble & Porporino, 1988). According to Celinska et al. (2021), adaptive coping strategies have a positive long-term effect. These include facilitating re-entry into society after incarceration and assisting with readjustment to life with family and the community. Therefore, offenders who use adaptive coping strategies are more likely to cope with the pains of incarceration (Chahal et al., 2016; Cochran & Mears, 2013).

Improved well-being and mental health of offenders are associated with visitations and social support from outside the correctional environment (Cochran & Mears, 2013; Skowronski & Talik, 2018; Van Harrevald et al., 2007). Friendship and social support within the correctional environment may help prevent offenders from responding negatively or keep them from escalating conflict or being involved in violent situations (Leban et al., 2016; Rocheleau, 2014). Problem-solving skills tend to protect offenders against the adverse effects of incarceration and facilitate better-coping skills in the correctional environment (McMurran & Christopher, 2009). According to Jordaan and Hesselink (2022), there tends to be a decrease in the physical aggression, anger, and hostility levels of offenders when their problem-solving skills improve.

Thus, coping strategies are essential for offenders who need to learn to adapt to a stressful and depriving environment different from life outside the correctional centre (Chahal et al., 2016). According to Pretorius et al. (2022), previous research indicates that coping strategies are part of an offender's process of adapting to incarceration. Therefore, given the potential significance of coping, it seems essential to be able to identify the possible predictor variables

of coping amongst offenders (Agbakwuru & Awujo, 2016; Jordaan & Hesselink, 2022; Mushwana, 2018; Picken, 2012; Pretorius et al., 2022; Reed et al., 2009).

1.3 Problem Statement

According to Skowronski and Talik (2018), studies focusing on variables associated with coping amongst the offender population are vague. Therefore, this study aims to expand the understanding of coping in male offenders by exploring whether perceived social support, aggression, age and repeat offending can be possible predictor variables of coping amongst male offenders in a maximum-security correctional centre.

Perceived social support is the perception or experience of being loved and cared for by others and being part of a social network of mutual assistance and obligations (Ireland, 2001; Rogers, 2019). Social support tends to be an essential buffering mechanism for offenders as it reduces the correctional environment's adverse effects on mental and physical health (Reidy & Sorensen, 2020; Visher & Travis, 2011). Social support provides offenders with coping techniques, such as seeking help, advice, comfort and support from friends, parents, and professional and spiritual figures (Rocheleau, 2015; Van Ginneken, 2016). Thus, social support tends to foster a sense of resilience and well-being amongst offenders (Maschi et al., 2015; Mefoh et al., 2014). According to Pratt and Foster (2020), offenders tend to be at risk of suicidal ideation and attempts within the correctional environment when they experience a lack of social support.

Aggression is any behaviour that is unwanted enacted to harm another person who is motivated to avoid harm and perceives the behaviour as intrusive and harmful. (Awopetu & Igbo, 2015; Warburton & Anderson, 2015). Offenders tend to use aggression as a method of coping with the stressors of incarceration (Chahal et al., 2016; DeLisi et al., 2004; Doty et al., 2012; Jordaan & Hesselink, 2022; Lahm, 2008; McCorkle, 1992). Therefore, the display of

aggressive behaviour amongst offenders reflects an inability to cope or a maladaptive way of coping with the demands of the correctional environment (Picken, 2012). Aggressive behaviours amongst the offender population include disturbances of rehabilitation programmes as well as the internal order of the centre, active resistance, assault on other offenders and staff members, , escape, self-harm, and possession of a weapon (Arbach-Lucion et al., 2012; Hesselink-Louw, 2004; McGuire, 2018; Pollock et al., 2012). The consequences of aggressive behaviour are lost lives, personal injury, fear, monetary costs of increased supervision, higher security, segregation, lengthier sentences, and the proliferation of supermax correctional centres (Rocheleau, 2015).

Elderly and younger individuals may encounter similar adverse events, but they may differ in the probability of labelling this event as a stressor (Monteiro et al., 2014). Elderly offenders may have better coping strategies than younger offenders because they use various coping strategies learned through their own and vicarious experiences within the correctional context in their efforts to psychologically survive their current situation (Maschi et al., 2015; Onyeizugbo, 2014). However, elderly offenders may be prone to experiencing victimisation (i.e., physical, sexual, psychological victimisation) from younger offenders, which may inhibit them from coping effectively with incarceration (Kerbs & Jolley, 2007). Young adult offenders tend to possess poor coping skills that result in negative behaviour (Rocheleau, 2011). This is due to young adult offenders being more prone to challenges associated with the developmental skills required to cope with the challenges of incarceration (Scott & Steinberg, 2008; Valentine et al., 2015). Thus, how offenders cope in the correctional environment may be affected by their age (Luke et al., 2021).

A repeat offender is someone who re-enters society after completing their sentence and then reoffends (D'Alessio & Stolzenberg, 2019; Ndombi, 2014). Picken (2012) stated that repeat offenders tend to cope better than first-time offenders due to them developing coping

strategies based on their prior experience of incarceration, which enables them to be less fearful and to readily identify and avoid dangerous situations (Crank, 2010; Mohino et al., 2004; Rogers, 2019). Thus, similar to elderly offenders who have spent a long time in the correctional environment, their previous incarceration experience allows them to understand their environment, including other offenders, and witness the success and failure of various coping strategies to refine them (Leban et al., 2016).

These possible predictor variables of coping amongst incarcerated private maximum-security offenders will be elaborated on in more depth in subsequent sections.

1.4 Research Aim

This research study aims to determine which predictor variable(s) or combination(s) of predictor variables explain a significant percentage of variance in coping amongst incarcerated maximum-security male offenders. In this study coping is the criterion (dependent) variable, while perceived social support, aggression, age and repeat offending are the predictor (independent) variables.

1.5 Research Questions

To address the aim of the study, the following research questions will be explored:

- Can the combination of aggression, perceived social support, repeat offending, and age explain a significant percentage of the variance in coping amongst incarcerated male maximum-security offenders?
- Do any of the individual predictor variables significantly contribute to the variance in coping amongst incarcerated male maximum-security offenders?

1.6 Research Methodology

1.6.1 Research design

This study is non-experimental and will be using a quantitative research approach. Non-experimental research describes existing phenomena without manipulating variables or controlling the environment (Radhakrishnan, 2013). According to Apuke (2017), quantitative research involves gathering numerical data so that the information can be assessed and subjected to statistical analyses to support or disprove alternative knowledge claims. Secondary data analysis (Tripathy, 2013) will be conducted in this study using existing research data to answer a different question from the original work. Lastly, a correlational research design (Tan, 2014) will investigate the relationships between the variables.

1.6.2 Research Participants and Sampling

This study will use an existing data set from a previous research study titled: "*Predictors of prison adjustment amongst male incarcerated offenders in a private maximum-security correctional centre*" (UFS-HSD 2017/0939). Therefore, this study will utilise secondary data analysis, which analyses previously collected data (Johnston, 2017). Convenience sampling, a non-probability sampling method (Neuman, 2014; Stangor, 2011, 2015) was used in the original study to recruit the participants. The sample consisted of 418 incarcerated male maximum-security offenders from different ethnic groups, gang affiliations, types of offenses, ages, sentence lengths, etc.

1.6.3 Data collection Procedures/Measuring Instruments

The data were collected using five questionnaires in the original study. However, this study will only discuss four questionnaires relevant to this study's aim and research questions.

A biographical questionnaire was administered to collect demographic information from the participants, such as (i) age, (ii) type of offense, (iii) sentence length, (iv) offender type, (v) gang affiliation, (vi) drug and alcohol abuse, (vii) ethnicity, etc.

The *Coping Strategy Indicator* (CSI; Amirkhan, 1990) was used to measure the participants' coping strategies. The CSI has 33 items and three subscales, which assess 11 items each. The three subscales are (i) Problem-solving, (ii) Seeking Social Support and (iii) Avoidance. The CSI items are rated on a three-point Likert-type scale with response options ranging from 1 ("*Not at all*") to 3 ("*A lot*") (Amirkhan, 1990, 1994; Jordaan & Hesselink, 2022; Joseph & Kuo, 2009; Kirchner et al., 2008; Pretorius et al., 2022). Higher scores on each subscale indicate a higher chance of using the associated coping strategy (Amirkhan, 1994). Adequate to exceptional internal consistencies for the subscales, ranging from .68 to .90 for Problem-solving, .72 to .86 for Seeking Social Support, and .62 to .72 for Avoidance were reported in previous studies (Amirkhan, 1990, 1994; Duba, 2022; Jordaan, 2014; Jordaan & Hesselink, 2022; Jordaan et al., 2018; Pretorius, 2019; Pretorius et al., 2022; Rogers, 2019; Rogers et al., 2022).

The *Buss and Perry Aggression Questionnaire* (BPAQ; Buss & Perry, 1992) was used to measure the offenders' levels of aggression. The BPAQ is a self-report questionnaire that consists of 29 items divided into four subscales, namely (i) Physical Aggression, (ii) Verbal Aggression, (iii) Anger, and (iv) Hostility. The BPAQ items are rated on a five-point Likert-type scale with response options ranging from 1 ("*Extremely uncharacteristic of me"*) to 5 ("*Extremely characteristic of me*"). Higher scores on each factor indicate higher levels of aggression (Buss & Perry, 1992). Adequate to good internal consistencies, ranging from .62 to .85, have been identified for the subscales of the BPAQ (Buss & Perry, 1992; Jordaan, 2014; Jordaan & Hesselink, 2022; Jordaan et al., 2018; Loots, 2010; Pretorius, 2019; Pretorius et al., 2022; Rogers, 2019; Rogers et al., 2022).

The *Multidimensional Scale of Perceived Social Support* (MSPSS; Zimet et al., 1988) was used to measure the perceived social support of the offenders. The MSPSS measures individuals' perceived social support using three subscales, namely (i) Friends, (ii) Family, and (iii) Significant Other (Zimet et al., 1988). The 12 items on the MSPSS are measured using a seven-point Likert-type scale with response options from 1 ("*Very strongly disagree*") to 7 ("*Very strongly agree*") (Zimet et al., 1988). In South African studies on offender populations by Rogers (2019) and Duba (2022), the following internal consistencies for the subscales were reported, namely .86 to .90 for Family, .83 to .90 for Friends, and .84 to .89 for Significant Other. Higher scores indicate a high degree of perceived social support (Zimet et al., 1988).

1.6.4 Statistical Data Analysis Procedures

The collected data was be analyzed using the Statistical Package for Social Sciences (SPSS Version 28, IBM Incorporated, 2022). Cronbach's alpha and Omega coefficients was calculated to identify the internal consistencies of the various measuring instruments. Descriptive statistics were calculated for both the sample and the measuring instruments. Pearson correlations between the variables were investigated. Hierarchical multiple regression analyses was determined in order to understand which predictor variable(s) or combination(s) of predictor variables explained a significant percentage of the variance of coping amongst the incarcerated male maximum-security offenders. Coping served as the criterion (dependent) variable, while aggression, perceived social support, repeat offending and age were the predictor (independent) variables.

1.6.5 Ethical Considerations

Offenders represent a vulnerable population. Therefore, research conducted in correctional centres should follow sound ethical practices to avoid the exploitation of participants (Field et

al., 2019). The original study titled "*Predictors of prison adjustment amongst male incarcerated offenders in a private maximum-security correctional centre"* obtained ethical clearance from the General and Human Research Ethics Committee (GHREC) at the University of the Free State (Ethics number: UFS-HSD2017/0939), and the Department of Correctional Services (DCS). Ethical clearance was also obtained from the GHREC for this research study (Ethics number: UFS-HSD2021/1770/21).

Information regarding the purpose of the original research study and that the study collected data may be used for future research was provided to participants through a comprehensive information leaflet. Before the participants were allowed to participate in the study, written informed consent was obtained from them. Anonymity and confidentiality were assured to the participants in order to ensure that they were aware that their participation was voluntary and that they were allowed to withdraw from the study at any stage. Incentives were not provided to participants as motivation to participate in this study. However, a psychologist and a social worker employed by the correctional centre were present to assist with debriefing and provide counselling to offenders who might have experienced any distress resulting from participating in the study. The current study constitutes a secondary analysis of existing data. Therefore, ethical considerations aligned with secondary data analysis will be upheld (Tubaro, 2016). In secondary data analysis, the data is not collected to answer the present research question. Therefore, it is the researcher's responsibility to conduct the secondary analysis to ensure that further analysis of the data undertaken is appropriate (Tripathy, 2013). Thus, the researcher utilised documentation from the original study and ensured a match between the research question and the existing data (Johnston, 2017). Further concerns about using secondary data revolve around potential harm to individual subjects. Therefore, this research study's analysis aimed to not cause any damage

or distress to participants by ensuring there was no re-identification (Tripathy, 2013; Tubaro, 2016).

1.7 Value of the Study

Research in correctional centres is highly valued as it leads to significant discoveries, new ways of rehabilitating offenders and improving correctional care (Department of Correctional Services [DCS], 2019). This study can help indicate which possible predictor variables are the best predictors of coping amongst male incarcerated offenders in the South African context. This is important to address since offenders have higher levels of stress, anxiety, and suicide than the general population, and the DCS needs to aid in the coping of offenders (Picken, 2012). Identifying predictor variables for coping may also be essential for the safety of staff and other offenders and will contribute to the improvement of offender management and rehabilitation (Asberg & Renk, 2014; Rocheleau, 2014; Skowronski & Talik, 2018).

1.8 Clarification of Concepts

For this study, the concepts used are clarified as follows:

1.8.1 Coping

Coping refers to a combination of cognitive and behavioural strategies individuals use to deal with stressful problems or situations (Compas et al., 2017; LaCourse et al., 2019; Shulman & Cauffman, 2011).

1.8.2 Incarceration

Incarceration is the admission and detention of an individual in a correctional centre (Neser, 1993).

1.8.3 Offender

An offender is an individual convicted and then detained in custody for a criminal offense, transferred in custody, or en route from one correctional centre to another (White Paper on Corrections in South Africa, 2005).

1.8.4 Aggression

Aggression is any behaviour that is unwanted enacted to harm another person who is motivated to avoid that harm and perceives the behaviour as intrusive and harmful (Awopetu & Igbo, 2015; Warburton & Anderson, 2015).

1.8.5 Repeat Offender

A repeat offender is someone who re-enters society after completing their sentence and then reoffends (D'Alessio & Stolzenberg, 2019; Ndombi, 2014).

1.8.6 A Correctional Centre

Established under the Correctional Services Act (25 of 2008), correctional centres are where individuals are sent for incarceration or detention (Du Preez et al., 2015).

1.8.7 A Maximum-Security Correctional Centre

Maximum-security correctional centres are designed to detain (house) the most violent and dangerous offenders who are serving long sentences, from 10 years to life imprisonment (Drake, 2011; Reidy & Sorensen, 2020).

1.8.8 A Private Maximum-Security Correctional Centre

Private maximum-security correctional centres are institutions that are operated by a third party (i.e., private sector or private company that is contracted by government to provide various services within the correctional centre) (Gaes, 2019; Seiter, 2013).

1.9 Structure of Dissertation

This dissertation consists of five chapters.

Chapter One introduces and orientates the reader to coping amongst incarcerated maximum-security offenders and emphasises the study's problem statement, rationale/background, research aim, research questions, ethical considerations, and clarification of numerous concepts. Lastly, the value of the study is discussed.

Chapter Two provides the reader with an extensive literature review of coping amongst male maximum-security offenders and its related topics.

Chapter Three provides the reader with an outline of the study's research methodology used to meet the research aim and answer the research questions. The research approach, research design, sampling procedure and data collection procedures will be discussed in this chapter. There will further be a discussion on the measuring instruments, data analysis procedures and ethical considerations of the study.

Chapter Four presents all the study's research findings.

Lastly, **Chapter Five** encompasses a summary of the study's findings. The value and contribution of the study will also be discussed, and chapter five will conclude with the limitations and recommendations for future research studies.

1.10 Summary of Chapter

Chapter one provided a short, detailed discussion of the problem statement, the aim of the study, and the research questions. This was followed by briefly discussing the research methodology, participants and sampling techniques, and the data collection procedures and analysis. Lastly, chapter one discussed ethical considerations, the value of the study,

clarification of concepts used in the research and an outline of the structure of the dissertation.

CHAPTER TWO

COPING IN THE CORRECTIONAL ENVIRONMENT

2.1 Introduction

Chapter two will review literature from previous research regarding coping and especially coping amongst incarcerated male offenders. This chapter will provide background on correctional centres, including the different types of correctional centres in South Africa. Chapter two will then proceed to discuss the experiences of incarcerated male offenders, including the importance of coping in the correctional environment, followed by a discussion of theories regarding coping. Furthermore, four possible predictor variables of coping (i.e., perceived social support, aggression, age, and repeat offending) will be discussed. To conclude, a summary of the literature will be provided.

2.2 The Incarceration of offenders in Correctional Centres

A distinctive characteristic of the earliest correctional centres is the lack of a systematic policy concerning the incarceration of sentenced offenders (Singh, 2005). Correctional centres were intended for short-term incarceration of a range of offenders, i.e. debtors, vagrants, runaway servants, people awaiting trial or punishment and individuals who had been punished but had outstanding financial debts (Johnston, 2016; Rubin, 2019; Singh, 2005). The significant transformation of correctional centres did not occur until the end of the 18th century and early 19th century (Johnston, 2016). Modern correctional centres are characteristically different from early correctional centres as they are governmentally operated centres used, not only to incarcerate offenders as punishment but also to address their offending behaviour (Rubin, 2019).

Modern correctional centres are used to detain awaiting trial offenders, offenders who have been sentenced for longer than a year, juveniles, and male and female offenders

(Gannetion et al., 2018; Marqua-Harries et al., 2019; Nel, 2017; O'Connor, 2014). Offenders are punished by sentence periods based on the severity of their criminal offense, criminal history and mandatory sentencing guidelines which a judge cannot depart from for particular criminal charges (Estelle & Phillips, 2018). The DCS aims to prevent offenders from committing further crimes and relapsing into offending behaviour (Cropsey et al., 2007). It is imperative for the DCS to ensure that the basic needs of offenders are met through the provision of food, shelter and medical care (Cropsey et al., 2007). The above view expresses that the DCS is expected to take care of offenders who have been incarcerated with the provision of adequate care during their incarceration (Amali, 2018). Thus, the DCS is required to meet the objectives of retribution, rehabilitation, restorative justice, deterrence and protection of society (Gannetion et al., 2018; Hesselink & Herbig, 2010).

However, according to Gul (2018), most correctional centres violate international norms (Arusha Declaration on Good Prison Practice, 1999; Basic Principles for the Treatment of Prisoners, 1990; Universal Declaration of Human Rights 1948, The Kampala Declaration, 1996; UN Standard Minimum Rules for the Treatment of Prisoners, 2015) regarding the rights of offenders. Conditions in correctional centres often increase the potential of an opposite, adverse effect on offenders, with many offenders who had committed minor offenses leaving these institutions after a short while more bitter, violent and criminally wiser than before (Cronje, 2012). Hesselink and Herbig (2010) argue that poor infrastructure and maintenance of correctional centres create conditions for pro-criminal activities and associations such as gang involvement, gang assault and smuggling of contraband.

Therefore, the conditions found in the correctional environment, including South African correctional centres, tend to be stressful, and offenders cannot dissociate themselves from these sources of stress (Skowronski & Talik, 2018). A lack of coping in the correctional environment could result in suicide, anxiety, depression, self-inflicted injuries, stress-related

disorders, hopelessness and PTSD symptoms (i.e., paranoia, hypervigilance, avoidance) (Celinska et al., 2021; Dudeck et al., 2011; Du Preez et al., 2015; Fazel et al., 2016; Leszko et al., 2020; Mushwana, 2018). There also tends to be an increase in aggression and the threat of violence to both staff and other offenders (Rocheleau, 2011). These negative symptoms and feelings due to a lack of coping strategies can persist long after offenders have been released and prevent them from reintegrating successfully into society (Matshaba, 2007; Mushwana, 2018; Steyn & Hall, 2015). This means that correctional centres should provide opportunities for offenders to develop coping strategies that will assist them in dealing with the effects and challenges of incarceration (Byrne & Hummer, 2008; Picken, 2012; Tomar, 2013). The following section will discuss correctional centres in the South African context.

2.2.1 Correctional Centres in South Africa

Dutch colonialists introduced the penal system in South Africa. However, after the British occupation, the penal policy, including incarceration, began to take shape (Nel, 2017). Historically, correctional centres in South Africa have been regarded as places for punitive authoritarianism that represented a microcosm of a divided country racked by racial segregation and discrimination and repressive measures such as solitary confinement and violent interrogation (White Paper on Corrections, 2005). The year 1993 saw a transformation in correctional centres in South Africa when the country's Interim Constitution introduced a human rights culture (Dissel & Ellis, 2002; White Paper on Corrections in South Africa, 2005). However, it was not until the White Paper on Corrections (2005) was developed that the implementation of rehabilitation in the DCS was seen. The White paper on Corrections in South Africa is the principal strategic document aimed at directing the management and service provision of the DCS (Muntingh, 2005; White Paper on Corrections, 2005). The White Paper on Corrections in South Africa represented a break from the archaic penal system. Correctional centres became correctional rehabilitation centres

where offenders were given new hope and encouraged to adapt to a lifestyle that would result in a second chance to become the ideal South African citizen (White Paper on Corrections, 2005).

Currently, there are 235 correctional centres in South Africa that are in operation, with 122 correctional centres housing male offenders only, 9 correctional centres housing female offenders only, and 91 correctional centres housing both male and female offenders (DCS, 2019; Murhula & Singh, 2020). There are 140 948 incarcerated offenders as of 31 March 2021, with 90 897 being male offenders (DCS, 2021). Correctional centres in South Africa are governed and managed per the White Paper on Corrections in South Africa (2005), the Constitution of the Republic of South Africa Act (108 of 1998), the Correctional Services Act (111 of 1998) and international imperatives on how to humanely treat offenders (The Offender Rehabilitation Path, 2007; Singh, 2005). The correctional system in South Africa aims to enforce court sentences and detain offenders in safe custody whilst ensuring their human dignity and promoting the social responsibility and human development of offenders and persons (Hesselink & Herbig, 2010). This is reiterated in the mission of the DCS, which states that it aims to contribute to a just, peaceful and safer South Africa through effective and humane interactions with offenders, rehabilitation and social reintegration (DCS, 2018; White Paper on Corrections, 2005).

South Africa has four categories of correctional centres, namely (i) minimum-security, (ii) medium-security, (iii) maximum-security and (vi) super-maximum-security correctional centres (Jordaan, 2014; Jordaan & Hesslink, 2022; Neser, 1993; Pretorius et al., 2022; Rogers, 2019). Minimum-security correctional centres contain offenders who pose a limited level of threat to the community's safety. The movement of offenders in these centres is regulated with little or no staff supervision. There is also a minimal restriction on whom they associate with and their privileges. Programmes and activities motivate offenders to continue

responsible behaviour in an open, community-oriented environment. There are few minimum-security correctional centres in South Africa (Matshaba, 2007).

Medium-security correctional centres form the bulk of correctional centres in South Africa (Matshaba, 2007). These correctional centres house individuals who may pose a threat to the safety of the community (Jordaan, 2014; Matshaba, 2007; Neser, 1993; Pretorius, 2019; Rogers, 2019). Offenders are detained in an environment that promotes and tests responsible and socially acceptable behaviour through moderately restricted freedom of movement that is regulated and supervised (Matshaba, 2007). These correctional centres facilitate the delivery of interventions, programmes and activities designed to motivate offenders to adopt continued responsible behaviour within the limits of a closed environment (Jordaan, 2014; Neser, 1993). Perimeters of medium-security correctional centres are well defined, secure and controlled (Matshaba, 2007).

Maximum-security correctional centres are designed to incarcerate the most violent and dangerous offenders who are serving maximum sentences, from 10 years to life imprisonment (Drake, 2011; Reidy & Sorensen, 2020). Offenders incarcerated in maximum-security correctional centres are more isolated, subjected to more significant deprivations, restrictions and sanctions than offenders in lower custody and are generally at higher risk of misbehaving (Lanes, 2011; Morris & Worrall, 2010; Morris et al., 2012). This is due to the perception that they are the most dangerous group within the correctional environment (Labane, 2012; Muntingh, 2005). Maximum-security offenders are also considered threats to society should they escape and to other offenders and staff while incarcerated. Thereby justifying heightened security measures, surveillance and tighter disciplinary regimes (Reidy & Sorensen, 2020). The repercussions of these strict sanctions and restrictions tend to harm offenders (Manganye, 2016). Super maximum-security correctional centres detain high risk offenders who are serving long sentences as they cannot be detained in a normal correctional

environment due to their aggressive and violent nature (Mnguni, 2011). Anderson (2022) argues that super maximum-security correctional centres are also a response to the challenge of overcrowding facing the correctional system. Offenders incarcerated in super maximum-security correctional centres are only allowed one or two hours outside,they also don't have the privileges typically used to improve life in a correctional centre such as rehabilitation programmes and visitations which are limited (National Institute of Justice, 2016; Reiter, 2016).

There are two types of maximum-security correctional centres in South Africa, namely governmentally operated maximum-security correctional centres and private maximum-security correctional centres (Du Preez & Luyt, 2006; Jordaan, 2014; Jordaan & Hesselink, 2022; Pretorius, 2019; Pretorius et al., 2022; Rogers, 2019). The following section will discuss private maximum-security correctional centres and the differences between private and public maximum-security correctional centres.

2.2.2 Private and Governmental Correctional Centres

Governments worldwide, including the South African government, have had to turn to the private sector to provide correctional services (Simonds & Wright, 2017). This is due to governments struggling to provide public services to the general population and cannot provide additional funds to the DCS (Goyer, 2001). Privatisation involves the private sector, both profit business entities and non-profit organisations, providing government services (Seiter, 2013). The general format for privatising correctional centres is that the government pays for incarceration costs. Then the private sector pays for various services, including designing and building the centre, providing healthcare and management services, drug rehabilitation, kitchen services, electronic security devices for correctional centres, recruitment services, laundry services, job training, etc. (Goyer, 2001; Ntsobi, 2005; Seiter, 2013). The government, over 25 years, repays the private entity that built the correctional

centre. After that, the government takes ownership of the correctional centres (Cenge, 2013; Ntsobi, 2005)**.** Thus private maximum-security correctional centres are institutions that are operated by a third party (i.e., private sector or private company that is contracted by government to provide various services within the correctional centres (Gaes, 2019, 2001; Seiter, 2013).

Private and governmentally operated maximum-security correctional centres in South Africa are operated and managed differently (Matshaba, 2007). Conditions for offenders and correctional staff members (working conditions, salaries) are better in private correctional centres than in maximum-security public correctional centres (Ntsobi, 2005). Staff members in private correctional centre are trained more meticulously, and there are adequate management supervision and better control over correctional services (Du Preez & Luyt, 2006). Public maximum-security correctional centres are severely overcrowded, while overcrowding does not occur in private maximum-security correctional centres (Matshaba, 2007; Ntsobi, 2005). Overcrowding leads to a lack of resources which affects rehabilitation programmes but also creates stress amongst offenders, which results in anger, hostility, anxiety, depression and violence (Agbakwuru & Ibe-Godfrey, 2017; Agboola, 2016; Haney, 2012; Manganye, 2016; Mushwana, 2018; Sinefu, 2014). Overcrowded correctional centres are also more difficult to manage (DCS, 2021; Goyer, 2001; Tewksbury et al., 2014).

Private maximum-security correctional centres have no authority to decide where incarcerated offenders are detained, nor may these correctional centres choose which incarcerated offenders they will receive and house in their correctional centres (Jordaan, 2014; Rogers, 2019). The DCS classifies offenders, and these classifications will determine at which correctional centres in South Africa offenders are housed. The two existing private correctional centres in South Africa are both maximum-security correctional centres that house incarcerated offenders that received a maximum-security classification by the DCS

(Matshaba, 2007). One of the private correctional centres is Mangaung Correctional Centre (MCC), the research site for this study. In-depth detail about MCC will be provided in the next section.

2.2.3 Mangaung Correctional Centre (MCC)

Mangaung Correctional Centre (MCC) is a privately-owned and operated maximum-security correctional centre on the outskirts of Bloemfontein, the capital of the Free State. MCC opened in 2001 and is the second-largest private correctional centre internationally (MCC, 2008). In partnership with the DCS, G4S Correction Services, a British-based company, maintains and manages MCC. G4S Correction Services is responsible for the operations within MCC, including service delivery, work, security, and maintenance of the correctional centre. MCC utilises a strategic plan in line with the White Paper on Corrections in South Africa and guidelines indicated by the DCS (MCC, 2008).

MCC is a private maximum-security correctional centre that only accommodates male adult offenders with moderate to severe criminal sentences (Nyasulu et al., 2015). MCC consists of six housing units designed to accommodate 448 offenders per housing unit. These housing units are subdivided into eight housing streets with cells and two or four offenders sharing a cell; thus, there is no overcrowding (MCC, 2008; Matshaba, 2007). MCC's modern design is conducive to the safe custody of offenders and the development and humane treatment of offenders (MCC, 2008). Incarcerated male offenders in MCC have a structured day programme that consists of eight key components, namely (i) work, (ii) education, (iii) vocational training, (iv) physical education, (v) counselling, (vi) domestic activities, (vii) lifestyle options and (viii) a quiet period. The structured day programme is followed from Monday to Sunday and schedules all the general routines in the correctional centre and the various housing units. The structured day programme consists of two shifts. All the activities

or programmes are structured into the shift system, which is meant to accommodate the movement of offenders and space management (MCC, 2008; Pretorius, 2019; Rogers, 2019).

The main focus at MCC is developing and empowering offenders to become accountable and responsible citizens when released back into society. This is achieved through various developmental, empowerment and therapeutic interventions (MCC, 2008; Pretorius, 2019; Rogers, 2019). The professional staff ensures the provision of effective incarceration, efficient control measures and development of offenders. When offenders first arrive at MCC, they are assessed to determine the risks, strengths, needs and challenges of these offenders. The assessment outcome is used to draw up offenders' sentence plans (developmental plan) (Jordaan, 2014; MCC, 2008; Rogers, 2019). The offenders' needs are addressed through the offender care and empowerment programmes (MCC, 2008).

The offender care and empowerment programmes aim to provide a caring and empowering environment, opportunities, and programmes for development; and allow offenders to be accountable and responsible citizens. The concept of empowerment seeks to facilitate personal growth and skills through processes, opportunities and programmes to address life's challenges in a way that will reflect good citizenship and ensure offenders are competent enough. Care is not a gentle approach, meaning there will be no hesitation to reprimand and correct offenders if they have the wrong attitude or behaviour. The concept of care aims to treat offenders as human beings with the potential to be good citizens who can contribute meaningfully to others and the community. Care comprises aspects like acceptance, tolerance, respect, showing concern, empathy, active listening, guardianship, protection, being considerate, sensitivity to therapeutic relations, mentoring, a belief in potential and having hope for an offender (MCC, 2008; Pretorius, 2019; Rogers, 2019).

Thus, MCC aims to provide offenders with a safe, secure, and humane environment conducive to offenders' rehabilitation. However, the strict correctional environment makes the incarceration experience traumatic and stressful for many offenders as they are deprived of freedom, information, relationships, privileges and independence (Maschi et al., 2015; Muntigh, 2009; Rogers, 2019). Haney (2003) describes incarceration as a painful experience for offenders. The following section will focus on and discuss offenders' incarceration experiences.

2.3 The Incarceration Experience

Incarceration rates have increased in South Africa in the past decades as more individuals have been incarcerated for different offenses (Mushwana, 2018). Incarceration is the admitting, imprisonment and detention of sentenced individuals until the end of their sentences (Mabuza & Roelofse, 2013). Incarceration deprives individuals who have transgressed their liberty, thereby achieving possible retribution, incapacitation, deterrence, and rehabilitation (Agbakwuru & Awujo, 2016; Drake, 2012). Additionally, incarceration is meant to discourage individuals from engaging in offending behaviour and reduce the risk of offenses to the broader society. Incarceration aims to guarantee the social safety and possible reintegration of offenders (Amali, 2018; Drake, 2012; Ikoh, 2011).

According to Qhogwana (2017, 2020), the incarcerated offender's identity is associated with rejection, dehumanisation, denial of agency, restricted movement, labelling, severe and violent offenses, long sentences, being unwanted and deserving to be locked up. According to Listwan et al. (2012), offenders are stripped of certain comforts when incarcerated. They are no longer free citizens and have scheduled activities, strict and drastic regulations enforced by staff, and restrictions to meet family and those closest to them (Bisri et al., 2020; Listwan et al., 2012; Matshaba, 2007). Incarceration exposes offenders to daily stressors such as a

lack of privacy and purposeful activity; witnessing violence; the threat of victimisation; unhygienic conditions; different forms of violence and bullying tactics; overcrowding; substance use; gang activities; broken relationships with loved ones and significant others, lack of autonomy; inadequate healthcare; loneliness; boredom; solitary confinement; sexual assault; and worries about the future (Agboola, 2016; ., ; Combalbert et al., 2018; Gear, 2010; Haney, 2003; Ireland et al., 2006; Jordaan & Hesselink, 2022; Luyt & Moshoeu, 2013; Mansoor et al., 2015; Maschi et al., 2015; Peirce & Fondevilla, 2020; Pretorius et al., 2022; Sinefu, 2014; Van Hooren et al., 2018).

According to Muntingh (2009), the lack of proper care, especially medical care, is perceived as a challenging aspect of incarceration by offenders. Offenders often feel ignored and as if they are not viewed as human beings when they experience this lack of adequate care (Muntingh, 2009). Additionally, long-term incarceration can be difficult and challenging for offenders as they have to conform to the rules in correctional centres and regulations from other offenders who now make up their new society (Mushwana, 2018). Offenders incarcerated for long periods create habits of thinking and acting that can be dysfunctional, such as hypervigilance, interpersonal distrust and suspicion (Wright et al., 2017). This may be due to the dangerous nature of the correctional environment, where offenders need to learn quickly how to become hyper vigilant and alert for signs of threat or personal risk (Haney, 2003).

Thus, the correctional environment can negatively impact offenders. This may result in extreme stress, psychological suffering (high levels of anxiety and depression), physical consequences, and lifelong consequences from having encountered the extreme pain, stressors and deprivation of the environment (Crewe, 2011; Matshaba, 2007; Mushwana, 2018; Picken, 2012). Therefore, incarcerated offenders must be able to cope with the stressors of incarceration since the lack thereof could result in maladaptive coping (Blevins et al.,

2010; Bonta & Gendreau, 1990; Condon et al., 2008; Mandell, 2006; Tasca et al., 2010; Trulson, 2007; Visher & Travis, 2003). Maladaptive coping strategies include violence, institutional misconduct, substance abuse, and gang membership (Aborisade & Fayemi, 2016; Ashkar & Kenny, 2008; Booyens & Bezuidenhout, 2015; Gear, 2010). Porporino and Zamble (1984, p. 415) stated that offenders with less effective coping strategies tend to have more disciplinary violations and "identified more strongly with the criminal subculture".

South African correctional centres are well known for violence, institutional misconduct and rule violations (Lindegaard & Gear, 2014; Luyt & Moshoeu, 2013). Violence is a consequence of incarcerating large numbers of individuals with antisocial tendencies or behaviour in a space characterised by material and social deprivation (Mushwana, 2018). Male offenders are exposed to high levels of violence, physical abuse, and sexual abuse in their immediate environment (Gear, 2007a, 2007b, 2008, 2010; Hesselink-Louw, 2004; Jordaan & Hesselink, 2022; Matshaba, 2007; Pretorius et al., 2022). The use of violence is the ultimate display of harmful masculinity, and male offenders often need to preserve their 'manhood' in a correctional environment that constantly undermines that (Gear, 2010). The preservation of their 'manhood' can lead to overcompensation in exaggerated displays of hyper-masculinity and even the sexual victimisation of other offenders, enacted in a perverse way of demonstrating one's masculine prowess (Gear, 2010; Matshaba, 2007; Morse & Wright, 2019). Exaggerated masculinity as a coping mechanism in response to environmental stressors allows those incarcerated to adapt to the environment (Dolovich, 2018).

Sexual abuse and non-consensual sexual assaults are common forms of violence in correctional centres (Gear, 2010; Lindegaard & Gear, 2014; Luyt & Moshoeu, 2013; Mushwana, 2018). Vulnerable offenders may engage in coercive sexual activities to secure protection from being abused by other aggressive offenders (Luyt & Moshoeu, 2013). According to Gear (2010), sexual victimisation is normalised through forced partnering and

marriages where rape victims are taken as wives by the perpetrators. Sexual victimisation leads to future violence either inside or outside the correctional centre and to acts of self-violence, such as drug use or suicidal ideation and attempts (Mushwana, 2018). The consequences of sexual victimisation include the spreading of sexually transmitted diseases, with Human Immunodeficiency Virus (HIV) infection rates in correctional centres being higher than in the general population (Mushwana, 2018). Tattooing and, to a lesser extent for South African correctional centres, the injection of drugs can also contribute to the high incidence rate of HIV (Booyens & Bezuidenhout, 2015; Luyt & Moshoeu, 2013). According to Booyens and Bezuidenhout (2015), many first-time offenders may start abusing substances during their incarceration to cope with incarceration's loneliness and psychological distress.

Gangsterism is a well-known feature of South African correctional life (Gear, 2007a, 2007b, 2008, 2010; Gear & Ngubeni, 2002; Luyt & Moshoeu, 2013). Offenders may become gang members to avoid becoming victims of violence, such as protection or as an adaptive strategy (Cameron, 2020; Gear, 2010; Lindegaard & Gear, 2014). Gangs operating inside South African correctional centres resort to violence in a contest for domination, the right to supply and sell illegal substances or products, or to get necessities such as toiletries (Engelbrecht, 2008; Presence, 2013). Gangs in correctional centres often seek to intimidate other offenders, pressuring them to give up their food and other resources (Khwela, 2014). Thus, Hesselink-Louw (2004) and Muntingh (2009), state that offenders may become concerned about their personal safety due to them perceiving the correctional environment as unsafe.

The correctional environment, therefore, exposes offenders to dehumanising correctional conditions, deprivations, stressors of being sexually victimised and violence from gang members. Thus, identifying how offenders cope with the correctional environment is essential since many of the stressors encountered by offenders are unique to the correctional

environment (Luke et al., 2021). According to Edgemon and Clay-Warner (2019), the correctional environment and individual-level characteristics that offenders import into the correctional environment have been found to contribute to maladaptive coping and poor mental health. Thus, the next section will discuss the deprivation and importation models.

2.4 Deprivation and Importation Models

The deprivation and importation models attribute adjustment and coping in the correctional environment to factors either specific to the correctional centre experience (deprivation) or characteristics that offenders bring with them (import) into the correctional environment (Aborisade & Fayemi, 2016; Listwan et al., 2012; Wooldredge, 2020). These two models will be discussed more in detail below.

2.4.1 The Deprivation Model

The work of Clemmer (1940), Sykes (1958) and Goffman (1961) contributed to the development of the deprivation model. The deprivation model argues that adjustment to the correctional environment is due to the factors and conditions associated with the environment (Damboeanu & Nieuwbeerta, 2016; Huey, 2008). Depriving conditions found in correctional centres tend to be degrading and stigmatising and may lead to competition and conflict over limited resources (Aborisade & Fayemi, 2016; Manganye, 2016). Conditions and factors such as overcrowding, gangs, lengthy sentences, and correctional centre type contribute to the many adversities and difficulties experienced by offenders during incarceration (Morris & Worrall, 2010; Tewksbury et al., 2014). Offenders' vulnerabilities tend to be exposed when they experience depriving conditions in the correctional environment. Offenders who experience deprivation tend to be less able to cope with the correctional environment (Huey, 2008).

Sykes (1958, p. 63) coined the phrase “pains of imprisonment” to describe the conditions found in correctional centres. Sykes (1958) identified five deprivations associated with life in a correctional centre, namely (i) deprivation of liberty; (ii) deprivation of goods and services; (iii) deprivation of heterosexual relationships; (iv) deprivation of autonomy (v) deprivation of security. Herrera (2021) has expanded the concept of deprivations to include the deprivation of privacy. Therefore, the correctional environment exposes offenders to severe deprivation, and incarcerated offenders may sometimes find it difficult to cope within and adjust to the correctional environment (Chahal et al., 2016; Haney, 2012). Haney (2012) describes the extreme stress resulting from the harmful conditions in correctional centres as problematic because it appears to have direct adverse consequences on the offender’s physical and mental health. However, Irwin and Cressey (1962) criticise the deprivation model as being narrow and ignoring the characteristics of offenders, which they argue largely determines the behaviour in correctional centres. Thus, they proposed the importation model as an alternative to the deprivation model.

2.4.2 The Importation Model

The importation model argues that individuals import pre-existing characteristics when entering a correctional centre (Favril et al., 2017; Tewksbury et al., 2014). These characteristics include age, race, gender, social class, education level, socioeconomic status before incarceration, criminal history, substance abuse, social networks, and subjective attitudes and beliefs (Morris & Worrall, 2010; Souza & Dhami, 2010). Irwin and Cressey (1962) argued that offenders did not arrive in correctional centres as blank slates to be moulded by the correctional centre. Instead, offender conduct might reflect the values and behavioural characteristics that offenders bring into the correctional environment. Therefore, coping may be further complicated by various importation factors that offenders bring into the correctional environment and ultimately carry back into society (Luke et al., 2021).

Importation factors previously found to be related to misconduct and violence in correctional centres include age (Walters & Crawford, 2013), race (Steiner & Wooldredge, 2015), prior criminal history, history of drug use and mental health issues (Steiner et al., 2014). Dhami et al. (2007) in their study determined that offenders' quality of life before incarceration (defined as whether or not offenders had finished high school, were employed, had intimate relationships, substance abuse, or prior incarceration) had a direct effect on their participation in programmes, their feelings of happiness and their misconduct. Incarcerated offenders with a reduced quality of life before incarceration were cited with more correctional violations. Huey (2008) noted that suicide in correctional centres could be attributed to offenders' demographic, social and psychological characteristics rather than the conditions found in correctional centres. Thus, the importation model attributes maladaptive coping in correctional centres to the offender's characteristics rather than features specific to the correctional centre (Aborisade & Fayemi, 2016; Huey, 2008). However, the deprivation and importation models separately do not adequately explain coping and adjustment in correctional centres.

2.4.3 *Integrative Model: Deprivation and Importation*

The integrative model emerged when researchers found support for factors connected to both models and suggested that a more complete, consolidated model was needed (Velarde, 2001). The integrative model recognises that both the offender's characteristics and the correctional environment contribute to maladjustment among the offender population (Huey, 2008). The key idea behind the integrative model is that offenders' levels of vulnerability (i.e. socio-demographic variables, psychiatric history, values, norms and life experiences) tend to contribute to them reacting differently to the conditions found in the correctional environment. Therefore, coping is particularly important as offenders need to cope with personal constraints (i.e., imported characteristics) along with environmental deprivations of

incarceration (Chahal et al., 2016). The following section will therefore discuss coping and coping theories. However, despite the advantage of the integrated model, it cannot specify which correctional environment characteristics interact with individual characteristics (Prevost, 2011).

2.5 Coping and Coping Theories

Coping is an individual's constantly changing cognitive and behavioural efforts to manage specific external and internal demands appraised as taxing or exceeding their resources (Eisenbarth et al., 2013; Kubiak et al., 2007; Lazarus & Folkman, 1984). Coping tends to be shaped by situational needs, where the success of various coping strategies is determined by the situation that the individual finds themselves in (Amirkhan & Auyeung, 2007; Dvorakova et al., 2019). Coping is process-oriented, meaning that individuals are continually appraising stimuli within their environment (Compas et al., 2017; Lazarus & Folkman, 1984; Silinda, 2019). The *Transactional Model of Stress and Coping* by Lazarus and Folkman (1984) postulates that there are two core forms of appraisal, namely (i) primary appraisal and (ii) secondary appraisal. Primary appraisal places meaning in a specific individual/environmental transaction and determines the significance to an individual's well-being (Folkman, 1984; Lazarus & Folkman, 1984; Kagwe et al., 2018; Pretorius, 2019). The transaction may be considered to be benign-positive (i.e. exerting a positive effect on one's well-being), irrelevant (of no significance to one's well-being) or stressful (event could signify harm/loss, threat or challenge) (Lazarus & Folkman, 1984). A secondary appraisal determines what can be done to manage the stressor and its resultant distress (Dewe & Cooper, 2007; Pretorius, 2019; Silinda, 2019). The secondary appraisal is done when a specific transaction is deemed to be stressful and involves a cognitive process through which the individual identifies and evaluates their coping resources (e.g. self-efficacy), situational variables (e.g. job controls) and coping styles (i.e. how the individual has coped with similar events in the past) (Dewe &

Cooper, 2007; Folkman, 1984; Kagwe et al., 2018; Pretorius, 2019). This appraisal process generates emotions, and when stimuli are appraised as threatening, challenging or harmful (i.e. stressor), the resultant distress initiates coping strategies to manage emotions or directly address the stressor (Eisenbarth et al., 2013).

The outcome of coping efforts, accompanied by new information from the environment, results in cognitive reappraisal (Lazarus & Folkman, 1984). This is where the situation is reappraised to determine whether coping efforts have been successful or if the situation's nature has changed from stressful to irrelevant or benign-positive (Gross & John, 2003; Lazarus & Folkman, 1984). Therefore, coping is not an automatic adaptation; it does not have to bring a solution, but rather leads to managing stressful circumstances (Celinska & et al., 2021; Lazarus & Folkman, 1984).

Incarcerated offenders often try to address and cope with the stressors and challenges they experience in the correctional environment (Celinska et al., 2021; Pretorius, 2019; Pretorius et al., 2022; Rogers, 2019). However, offenders have generally been found to use maladaptive coping strategies that are neither healthy nor adequate for dealing with stress. Thus, it seems essential to explore coping strategies in the correctional environment.

2.5.1 Coping Strategies

Coping strategies are conscious and purposeful psychological and behavioural efforts to reduce, tolerate, minimise or master stressful events (Celinska et al., 2021; Kubiak et al., 2007; Weiten et al., 2011). Amirkhan and Auyeung (2007) argued that coping strategies are deliberate and effortful attempts to manage stress. Coping strategies can also be understood as the persistent alteration of cognitive and behavioural efforts at dealing with internal and external stressful situation requests (Iruloh & Ukaegbu, 2017). The construct of coping strategies can be understood as internal factors before a stressor, reducing the psychological

impact and enhancing well-being (Ireland et al., 2005; Newhard, 2014). After using a coping strategy, the individual may review how effective this was and make appropriate changes (Biggs et al., 2017; Folkman & Lazarus, 1985). Therefore, this suggests that coping strategies might change to more adaptive strategies to deal with current stressors and manage emotions (McBride & Ireland, 2015).

Coping strategies may be adaptive or maladaptive and the form that the coping process assumes determines how successful the stressor is resolved (Celinska et al., 2021; Taylor & Stanton, 2007). Adaptive coping behaviours foster personal growth, while maladaptive ones inhibit one's capabilities (Belanger et al., 2020). Adaptive coping strategies are cognitive and behavioural efforts in which a person directly deals with a stressor in order to improve their functioning and prevent negative outcomes (Celinska & Siegel, 2010). Adaptive coping strategies involve taking action and finding resources to deal with the problem, including planning and seeking out information or emotional support from others (Sirois & Kitner, 2015). Adaptive coping has positive long-term effects on offenders, including facilitating adjustment, maintaining psychological stability and managing re-entry into society after incarceration and readjustment to life with family and the wider community (Celinska et al., 2021; Kovacs et al., 2019; Pretorius, 2019; Pretorius et al., 2022). Adopting adaptive coping strategies is the key to survival for offenders, as these strategies help moderate the stress the offenders experience and thus, enhance the chances of their survival within the correctional environment (Agbakwuru & Awujo, 2016; Hardianti et al., 2020).

Different coping strategies have been distinguished (Ireland, 2001; Schoenmakers et al., 2015), including emotion-focused and problem-focused coping (Baker & Berenbaum, 2007). Problem-focused coping is used when an individual believes that something constructive can be done, while emotion-focused coping dominates when individuals believe that the stressor must be endured instead (Serran & Marshall, 2006). The use of problem-focused coping

strategies, such as designing plans of action and problem-solving, tend to increase the chances of an individual being able to manage a stressor more effectively and adapt immediately to it (Ireland, 2001). According to Moore et al. (2011), problem-focused coping will probably bring about more positive outcomes than emotion-focused coping. However, problem-focused coping is doubtful to be effective in the correctional environment because, other than the option of escaping, offenders cannot undo their offenses.

According to Van Harreveld et al. (2007), emotion-focused coping may be the best coping response for incarcerated offenders. A study by Bisri et al. (2020) found that emotion-focused coping predicted adjustment for new offenders. The successful application of emotion-focused coping could increase offenders' self-esteem and their overall ability to overcome problems in the future (Bisri et al., 2020). However, emotion-focused coping may also correlate with poor psychological well-being, and offenders who adopt such strategies would probably be challenging to rehabilitate (Mefoh et al., 2015). This is because offenders who use emotion-focused coping may build a reservoir of resentment, and the correctional environment becomes a training ground for more serious offenses (Mefoh et al., 2014). Therefore, emotion-focused coping is more likely to be effective when there has been an appraisal that nothing can be done to modify harmful, threatening or challenging environmental conditions (Whitty, 2003). Lazarus (2000) stated that problem-focused coping and emotion-focused strategies usually complement one another during coping. These coping strategies will be discussed more in-depth in the sections below.

2.5.1.1 Problem-focused coping

Problem-focused coping is a self-directed cognitive behavioural approach in which a person attempts to identify or discover effective or adaptive ways of coping with problematic situations (Chao, 2011; D'Zurilla & Goldfried, 1971; Evans et al., 1999). Problem-focused coping includes using all the active efforts to manage stressful situations and alter a troubled

person-environment relationship to modify or eliminate the sources of stress via individual behaviour (Folkman, 2007; Sabina & Tindale, 2008; Ying et al., 2014).

Problem-focused coping may include generating options to solve the problem, evaluating the pros and cons of different options and implementing steps to solve the problem (Lazarus & Folkman, 1984; Perry et al., 2015; Pretorius, 2019; Sabina & Tindale, 2008; Ying et al., 2014). Seeking advice from others, coming up with a strategy or taking action to improve a situation, and removing oneself from a stressful situation are also considered problem-focused coping techniques (Caroll, 2020; Gould et al., 2013). Individuals using problem-focused coping may often need to take charge of their situation by changing the relationship between themselves and the sources of stress (Minchekar, 2017).

According to Serran and Marshall (2006), individuals using problem-focused coping either adopt behavioural strategies to deal directly with a problem or cognitive strategies that reconceptualise the problem or minimise it. In the correctional environment, problem-focused coping tend to be associated with improved well-being (Dear et al., 2001). Ireland (2005) found that problem-focused coping predicted decreased overall psychological distress and increased psychological well-being in younger offenders. Poor problem-focused coping is associated with impulsive responses and incomplete solutions (Perry et al., 2015). However, Van Harreveld et al. (2007) argued that it is unlikely for problem-focused coping to be effective for offenders because few behavioural strategies are available for offenders in the correctional environment. Problem-focused coping is further ineffective in the offender population due to the strictness of the correctional centre environment (Bisri et al., 2020; Picken, 2012). In a study by Rocheleau (2015), offenders opted to use avoidance, disengagement and obtaining emotional support to cope with interpersonal problems with staff as there was little they could do to change the situation. Thus, emotion-focused coping

may moreover be a more effective coping strategy for offenders as it tends to positively impact an offender's mental health (Van Harreveld et al., 2007).

2.5.1.2 Emotion-focused coping

Emotion-focused coping is a coping strategy to relieve individual emotions caused by pressure without trying to directly change the situation that was the source of the stress (Bisri et al., 2020). Emotion-focused coping can be used to overcome, reduce and even eliminate emotional tension arising from a stressful situation or surviving negative dynamic pressure due to problems faced at once (Taylor, 2018). Emotion-focused coping involves managing or regulating the emotional distress associated with a stressful situation (Compas et al., 2017; Folkman & Moskowitz, 2007; Green et al., 2010; Lazarus & Folkman, 1984; Pretorius, 2019). Techniques in emotion-focused coping strategies include avoidance, denial, focusing on and venting emotions, minimisation, distancing, selective attention, comparisons, self-deception, positive reinterpretation of events, distortion of reality and seeking out social support (Baker & Berenbaum, 2007; Celinska et al., 2021; Ricciardelli & Memarpour, 2016).

Emotion-focused coping strategies (i.e. venting emotions, avoidance, denial) in a study by Mefoh et al. (2014) predicted an increase in psychological well-being amongst offenders in a Nigerian correctional centre. Furthermore, a study by Van Harreveld et al. (2007) showed that offenders who used emotion-focused coping as a coping strategy tended to have increased physical health than offenders who opted to keep their negative feelings to themselves. This indicates that through the regulation of emotions, offenders are able to survive stressful situations and manage and overcome daily life demands and challenges in the correctional environment (Bisri et al., 2020).

Emotion-focused coping strategies, therefore, seem to be essential for offenders to acquire the capacity to adjust adequately and successfully to the correctional environment (Visser,

2010). Emotion-focused coping can also eliminate anxieties and worries about their environment and increase self-esteem and the ability to solve problems in the offender population (Bisri et al., 2020). However, Leban et al. (2016) showed that emotion-focused coping was ultimately the least used coping strategy amongst the offender population.

2.5.1.3 Maladaptive coping

Many offenders cannot cope with the pain of imprisonment and therefore use maladaptive coping techniques such as self-harming, suicidal attempts, misconduct, aggression and violence (Adams, 1992; Jordaan & Hesselink, 2022; Pretorius, 2019; Pretorius et al., 2022). Maladaptive coping refers to methods that often lead to adverse consequences, including mental health concerns (Deasy et al., 2014; Picken, 2012; Santi et al., 2020). It is separated into two different categories, namely emotional coping, which is when individuals respond to a situation confrontationally or with an excessive emotional response and avoidance-based, where individuals actively delay responding to a problem or avoid a stressful situation entirely through isolation or other maladaptive behaviours (Folayan et al., 2017; McGee et al., 2013; McHugh et al., 2013). Maladaptive coping strategies include self-blaming, denial, disengagement, suppression and social withdrawal (Compas et al., 2017; Crewe et al., 2020). During the early stages of incarceration, suppression enables offenders to escape the pains of incarceration and only acknowledge them at certain times (Crewe et al., 2020; Wright et al., 2017). Suppression is also used to avoid thinking about the offense (Crewe et al., 2020). Suppression may be achieved by blocking unwanted thoughts or substance abuse. Offenders tend to abuse substances as they effectively suppress the reality of the sentence and avoid contemplation of the offense (Crewe et al., 2020). Such techniques are deliberate ways to escape a stressor and prevent intrusive recollections of the offense (Wright et al., 2017). While many individuals try to suppress reality, others tend to want to escape it through self-isolation from family and other offenders and attempting suicide (Crewe et al., 2020).

Maladaptive coping is quite common amongst offenders (Van Hooren et al., 2018). Offenders who were victimised may use maladaptive coping techniques such as carrying a weapon, engaging in aggressive behaviour, joining a gang for self-protection, victimising other inmates, substance abuse, and committing disciplinary infractions (Chubaty, 2001; Ireland, 2001; Palmer & Farmer, 2002; Palmer & Thakordas, 2005). Maladaptive coping is linked to depression and reduced well-being in the correctional environment (Picken, 2012). According to Zamble and Proporino (1988), incarcerated offenders with maladaptive coping methods will often leave the correctional centre environment with the same lack of adaptive coping skills.

2.5.2 Mature Coping

Mature coping is doing the best with what is rightfully yours (Johnson, 1996). Mature coping involves dealing with problems, achieving autonomy and directly dealing with problems by utilising all the resources that are available to an individual. This aspect of mature coping involves assertiveness, a sense of personal efficacy and an internal locus of control concerning one's immediate environment (Bagdon-Cox, 2020; Johnson, 1996). Offenders engage in mature coping when they can manage problems in daily life using legitimate resources at their disposal, avoid using violence or deceit other than in self-defence, and build positive and prosocial relationships with others in the correctional environment (Carlisle & Johnson, 2020; Johnson et al., 2017). According to Johnson (1996), the offender population has essential elements of mature coping.

The first element requires offenders to employ mature coping by directly addressing routine daily life problems in the correctional centre and using all legitimate resources at one's disposal (Soderstrom et al., 2001). People who exhibit this aspect of mature coping are more autonomous than their passive counterparts. They display choice and control over their

lives, yet they do so without being hedonistic, impulsive or predatory (Johnson, 1996). The second element requires offenders to avoid using violence or deception unless it's for self-defence. When offenders respond with violence or manipulation, they are not coping maturely (Crewe, 2011; Rocheleau, 2015). This is due to the behaviour resulting in harsh repercussions that only enhance their suffering through punishment featuring isolation in restricted housing units or the loss of already limited privileges (Crewe, 2011). Therefore, mature coping requires offenders to resolve their problems amicably without resorting to violence, deception and manipulation (Bagdon-Cox, 2020). Avoidance of violence can also help improve their perceived quality of life when it supports a mutually beneficial relationship with correctional staff (Molleman & Leeuw, 2012).

The last element of mature coping is that offenders need to make an effort to empathise with and assist others in need, to act as though they are indeed members of a humane community who can work together to create a more secure and gratifying existence (Bagdon-Cox, 2020; Carlisle & Johnson, 2020; Johnson, 1996). This means offenders must learn to interact with others in supportive and socially acceptable ways, communicating effectively with fellow offenders and staff. Building relationships can be complex, but by reducing violence, improving trust and providing space for meaningful interaction, offenders can relate to others without complicated hierarchies of manipulation (Johnson et al., 2017). In pursuing relationships with others, offenders may need to practice behaviours that suit them well in the correctional environment, and their communities once released (Soderstrom et al., 2001).

These core elements of mature coping demand that measures of coping and problem-solving be utilised as central intermediate outcomes in evaluative designs that attempt to assess the effectiveness of interventions that promote mature coping (Johnson, 1996). Poor coping magnifies the many pains of imprisonment. Hence, offenders must learn how to cope maturely, address problems they face during incarceration and live in responsible ways that

help make their lives more liveable (Johnson et al., 2017). The following section will focus on coping styles (i.e. seeking social support, problem-solving and avoidance) as conceptualized by Amirkhan (1990).

2.6 Coping as Conceptualized by Amirkhan

Amirkhan (1990) classified coping into three styles: seeking social support, problem-solving and avoidance. Problem-solving assesses instrumental, problem-oriented approaches to actively manage stressors. Seeking social support measures attempts at human contact during times of duress for the comfort such activities provide (confiding your fears and worries to a friend or relative). Avoidance reflects tendencies to escape the problem, using physical and physiological withdrawal (e.g., through distraction or fantasy) (Amirkhan, 1990). These coping strategies will be discussed more in detail in the following sections.

2.6.1 Seeking Social Support

Serving a sentence is an isolating experience that disrupts social ties and support from the outside (Reidy & Sorensen, 2020). Social support is a broad construct that describes the network of social resources that an individual perceives. This social network is rooted in the concepts of mutual assistance, guidance, and validation of life experiences and decisions. A social system provides several forms of support, including informational, instrumental, and emotional (Sentlalentoa et al., 2014; Zhou, 2014). Jamadar (2012) defines social support as a multidimensional construct that deals with the subjective and objective needs and feelings in adapting to the environment and coping with challenges of daily living. Social support is also the perceived and actual amount of instrumental and expressive/ emotional support from primary relationships, social networks and communities (Hochstetler et al., 2010; Woo et al., 2016).

There are two types of social support, namely expressive and instrumental social support. Expressive social support involves the sharing and ventilation of emotions and affirming one's self-worth and dignity (Listwan et al., 2012). At the same time, instrumental social support involves material support in financial assistance, advice and guidance (Listwan et al., 2012). Instrumental and expressive social support may alleviate some of the pains of incarceration in the correctional environment. So, offenders need not engage in deviant behaviour or align with gangs to meet their needs (Woo et al., 2016).

Cochran and Mears (2013) state that social support during incarceration reduces the pains of incarceration, maintains prosocial bonds and provides access to social resources. Family support has a role in offenders' psychological well-being because it can help buffer the antisocial influences of being in a correctional centre and reduce the likelihood of assimilating into the culture found in the correctional centre (Clone & DeHart, 2014; Wallace et al., 2014). Offenders who get visitors are better able than those with fewer or no visits to cope with the correctional environment's stressful events and conditions and reduce social isolation. Thus, social support is more likely to incentivise offenders to refrain from misconduct (Blevins et al., 2010; Steiner & Meade, 2016; Turanovic & Tasca, 2019). In a study by Shulman and Cauffman (2011), young offenders who had social support better adapted to the correctional environment and experienced improved psychological well-being. However, visitation can also negatively impact adjustment if the pre-incarceration relationships are filled with interpersonal conflict making them negative and stressful rather than supportive (Siennick et al., 2013).

2.6.2 Problem-solving

Problem-solving is a self-directed cognitive behavioural process in which a person attempts to identify practical solutions for solving specific challenges they face (Chinaveh,

2013; Largo-Wight et al., 2005). According to Santos and Soares (2018), problem-solving is a process that enables individuals to implement coping strategies to deal with their everyday demands. Problem-solving requires the right choice of coping techniques, and this is done through a cognitive-behavioural process that (a) makes available a variety of potentially effective solutions for a particular problem and (b) increases the probability of selecting the most effective solution from among the various alternatives (D'Zurilla & Nezu, 2001; Santos & Soares, 2018). Individuals' confidence in their problem-solving abilities may influence their primary appraisal stimuli (Frydenberg & Lewis, 2009). Stimuli may then be perceived as less threatening, and individuals may perceive themselves as having the ability to manage a situation (Nezu et al., 2007).

Successful problem-solving provides individuals with a greater sense of control, reduces maladjustment and enhances positive adjustment (Frydenberg & Lewis, 2009; Nezu et al., 2007). Ignoring or retreating from problems may lead to a perception that one has poor problem-solving abilities. Poor problem-solving skills result in stressful outcomes, namely incomplete solutions, impulsive responses, psychological maladjustment, hopelessness, suicidal ideation, and depression (Chinaveh, 2013; Eidhin et al., 2002; Largo-Wight et al., 2005; Perry et al., 2019). Studies have shown that individuals who perceive themselves as poor problem-solvers show a more significant usage of maladaptive coping strategies and higher levels of worry than those who have more confidence in their abilities to solve a problem (Belzer et al., 2002). Poor problem-solving abilities have been identified as characteristic of incarcerated offenders who could not adjust during incarceration (Eidhin et al., 2002; Zamble & Porporino, 1988). According to Spradling (2001), offenders who cannot use problem-solving skills when faced with a problem may cause problems for themselves. Both offenders and staff risk injury when an offender reacts impulsively and aggressively due to a lack of problem-solving skills (Spradling, 2001). Thus, an offender's inability to use

adaptive coping strategies such as problem-solving may result in focusing on and venting emotions, inevitably resulting in different types of misbehaviour (Rocheleau, 2014).

Good problem-solving skills would protect offenders against the adverse effects of incarceration and facilitate better-coping skills in the correctional environment (McMurran & Christopher, 2009). Biggam and Power (2002) suggested that problem-solving may be a critical approach for interventions with vulnerable offenders in that offenders could be trained to identify, think through and tackle difficult interpersonal situations associated with incarceration. According to Coylewright (2004), enhancing an offender's problem-solving skills is vital for their success in rehabilitation and reintegration into society. Without the coping and problem-solving abilities necessary to be productive members of society, offenders cannot transform from incarcerated offenders to successful citizens (Coylewright, 2004).

2.6.3 Avoidance

The use of avoidance reflects cognitive, emotional and behavioural attempts to avoid thinking about a stressor and its implications (Herman et al., 2018). Individuals emotionally or physically distance themselves from the stressor by denying, engaging in distracting behaviour, or employing maladaptive behaviours like substance abuse (Leszko et al., 2020). Avoidance also includes indirect efforts to adjust to stress by distancing oneself from the stressor, evading the problem or engaging in unrelated activities to reduce feelings of stress (Roth & Cohen, 1986). Thus an individual engages in avoidance activities when seeking diversion or distraction from the experienced strain (Green et al., 2010).

Offenders may use avoidance coping strategies, such as denying the presence of the stressor and giving up attempts to deal with the stressor (Luke et al., 2021). Denying an offense may act as a buffer between the offender and the uncomfortable, painful reality of

committing an offense (Chahal et al., 2016; Crewe et al., 2020; Wright et al., 2017). Offenders in their early stages of incarceration, through the denial of their offense, tend to retain the support of family and friends who may otherwise have abandoned them. Another form of denial is the denial of time to be served which tends to help offenders focus on the immediate present, making the sentence more manageable (Crewe et al., 2020; Wright et al., 2017). Lastly, denying an offense or blaming the victim could help offenders protect their self-perception of being innocent or a good person (Crewe et al., 2020; Maschi et al., 2011). Therefore, denial may not eliminate negative mood states but may help offenders distance themselves from negative thoughts and feelings, fostering hope for a positive health outcome (Chahal et al., 2016). Gullone et al. (2000) argue that avoidance coping strategies can lower anxiety levels in incarcerated offenders

A study by Philips and Lindsay (2011) showed that offenders who used avoidance coping techniques had unhealthy outcomes such as substance abuse, avoiding family, isolating from others and engaging in high-risk sexual behaviour. In the correctional environment, avoidance coping tends to be a maladaptive coping strategy, which is a strong predictor of psychological distress amongst offenders (Luke et al., 2021). Ireland (2001) says that avoidance coping offers temporary, short-term solutions to a stressor, and continued use may affect an individual's health. Thus, possessing adaptive coping strategies will help offenders during incarceration and once they are reintegrated into society (Rocheleau, 2014). The following section will discuss the importance of coping in the correctional environment.

2.7 The Importance of Coping in a Correctional Environment

The deprivation of liberty, goods and services, autonomy and security, is a painful experience that requires offenders to form a defence to cope and adapt (Mathiesen, 2006). Incarceration inflicts psychological consequences that may result in emotional deterioration

within the individual (Ristad, 2008). These psychological consequences are reflected in the disproportionately elevated levels of depression, loneliness, nervousness, anxiety, substance abuse, suicidal ideation, and self-harm amongst incarcerated offenders (Dellazizzo et al., 2018; Vinokur & Levine, 2019; Zhou et al., 2014). There is a significant mental health treatment gap in South Africa, with very few offenders receiving the psychological and psychiatric care they require (Bantjes et al., 2017; Naidoo & Mkhize, 2012). The poor provision of psychological and psychiatric care is due to a constraint of resources (Muntingh, 2016). According to Murhula and Singh (2019) there is a huge deficit of psychologists working in South African correctional centres that contributes to the non-detection of mental health concerns amongst incarcerated offenders (Murhula & Singh, 2019; Naidoo & Mkhize, 2012). The lack of mental illness treatment becomes a risk factor for reoffending once offenders are released from the correctional environment (Cloyes et al., 2010; Prinsloo & Hesselink, 2015).

Offenders in South Africa show a prevalence of mental disorders, namely psychotic, bipolar, depressive, antisocial personality, post-traumatic stress, and anxiety disorders (DuPreez et al., 2015; Naidoo & Mkhize, 2012). Suicide is often the leading cause of mortality in the correctional environment because of the difficulties offenders face coping with the stressful and challenging correctional environment (Gooding et al., 2015; McKeown et al., 2017; Mushwana, 2018). Given the potential significance of coping in terms of limiting potentially harmful reactions to stress in correctional populations, it seems essential to be able to identify the predictor variables of coping with stressful situations used by offenders (Agbakwuru & Awujo, 2016; Jordaan & Hesslink, 2022; Mushwana, 2018; Picken, 2012; Pretorius et al., 2022; Reed et al., 2009). Thus, the next section will discuss the possible predictor variables of coping that this study will be investigating.

2.8 Predictors of Coping amongst Male Offenders

Numerous variables can be used to predict coping amongst male maximum-security offenders. The four variables used in this study as possible predictor variables of coping are perceived social support, aggression, age and repeat offending. Perceived social support from family, other offenders, and correctional staff may reduce the effects of stressors and improve the offender's psychological well-being and health (Shuhaimi et al., 2018; Van Harreveld, 2007; Visher & Travis, 2011). Aggression is used by offenders in order to cope with the stressors of the correctional environment (Kamoyo et al., 2015; Weightman et al., 2020; Wooldredge, 2020). Offenders of different ages tend to cope with and adjust differently to the correctional environment (Luke et al., 2021). Lastly, repeat offenders may fare better in the correctional environment than first-time offenders due to their previous incarceration experience (Leban et al., 2016; Picken, 2012). These four predictor variables will be discussed in the sections below.

2.8.1 Perceived Social Support and Coping

Perceived social support is the perception or experience of being loved and cared for by others and part of a social network of mutual assistance and obligations (Ireland, 2001; Rogers, 2019). Jang and Lyons (2006) define perceived social support as the belief that social support is available and provides what is considered needed in a given situation. Zimet et al. (1988) stated that perceived social support entails a relationship transaction between two or more people that is particularly effective as a shield during stressful circumstances. The perception that you have social support (i.e., the idea that there are people you can rely upon) to deal with traumatic events may be more critical than receiving actual social support (Listwan et al., 2012).

Perceptions of social support may change the appraisal of a stressful event and mitigate the adverse effects of incarceration by increasing predictability and self-control (Colvin et al., 2002; Cullen et al., 1999). According to Hochstetler et al. (2010), social support acts as a resource and safety net against the harmful effects of the correctional environment. Research consistently shows that social support reduces psychological distress such as depression or anxiety during stress and promotes psychological adjustment (Cochran & Mears, 2013; Ronel & Elisha, 2011; Picken, 2012; Taylor & Stanton, 2007). Social support contributes to better physical health and survival (Taylor & Stanton, 2007). According to Visher and Travis (2011), social support is an essential buffering mechanism for the correctional environment's adverse health effects on mental health. Wallace et al. (2014) examined the relationships between offenders' mental health and social support. They reported that offenders with stronger connections or a sense of closeness with their families during incarceration experienced positive mental health. Therefore, the emotional support provided by family members can help offenders withstand the stress and hardships of being incarcerated (Rocheleau, 2015; Visher & O'Connell, 2012).

Agbakwuru and Awujo's (2016) study amongst male offenders in a Nigerian correctional centre showed that offenders often formed surrogate families amongst themselves. The formation of surrogate families is a coping strategy. Offenders create alternative families to satisfy their human need for love and belonging (Agbakwuru & Awujo, 2016). Therefore, social support tends to provide offenders with coping tools (Van Ginneken, 2016), such as being able to vent about their problems, relying on other offenders to help calm them down or cheer them up when they are down, seeking help, advice, comfort and support from parents, friends, professionals and spiritual figures (Leban et al., 2016; Luke et al., 2021; Rocheleau, 2015; Wright et al., 2017).

Offenders in medium-security correctional centres tend to have more social support than offenders in maximum-security correctional centres (Abiola et al., 2017). Maximum-security offenders have limited social support and freedom to consult their significant others (Mamosadi, 2010). The lack of or limited social support tends to be a risk factor for suicidal ideation and behaviour, violent or aggressive behaviour and misconduct within the correctional environment (Abiola et al., 2017; Hesselink & Jordaan, 2018; Pratt & Foster, 2020).

2.8.2 Aggression and Coping

Aggressive behaviour or aggression is defined as unwanted behaviour intended to harm another individual and is perceived by the person who receives it as intrusive and harmful (Bushman & Anderson, 2007). According to Buss and Perry (1992), aggression could be a physical or verbal act that is directed at another person. The types of aggression found amongst offenders include reactive aggression (impulsive, affective, hostile, retaliatory aggression and is a response to a real or perceived threat) and proactive aggression (premeditated, predatory or instrumental aggression that is displayed to reach a goal) (Hubbard et al., 2010; Onyedibe et al., 2018). Within the correctional environment aggression is used by offenders as a coping strategy to cope with the stressors of correctional life (Chahal et al., 2016; DeLisi et al., 2004; Doty et al., 2012; Jordaan & Hesselink, 2022; Lahm, 2008; McCorkle, 1992). Aggression may manifest in disturbances, active resistance, attacks on others or threats of attack on others, theft, escape, and possession of a weapon (Arbach-Lucioni et al., 2012). The degree of aggressive behaviour amongst the offender population is elevated compared to the general population and is an everyday occurrence in the correctional environment (Awopetu & Igbo, 2015; Camlibel et al., 2021).

According to Wooldredge (2020), aggression or violence in the correctional environment manifests due to the culture and management of the correctional centre. The deprivation model also proposes that aggression amongst offenders is due to the stressful and restrictive conditions found in correctional centres (Sykes, 2007). The environment in correctional centres contributes to incidences of aggression because offenders often have to demonstrate toughness and manliness to protect their self-identity and attain or preserve social status (Ireland, 2001; Weightman et al., 2020). Weightman et al. (2020) attributed the limited activity, overcrowding, and inadequate privacy as contributors to aggression in the correctional environment. Overcrowding tends to increase the risk of aggression due to weaker surveillance and more limited access to programmes (Kamoyo et al., 2015). When offenders cannot move around and attend rehabilitation programmes, they become bored and irritable (Wooldredge, 2020).

Aggression increases due to the frustrations of being away from family (Cochran et al., 2014) or when family relationships are filled with conflict (Lindquist, 2000). Receiving emotional support and instrumental support from others reduces aggression while focusing on one's emotions increases aggression amongst offenders (Rocheleau, 2014, 2015). Offenders who reported eliciting support from family and friends as a coping strategy were less likely to be involved in aggressive behaviour (Rocheleau, 2014, 2015).

Lastly, aggression is strongly associated with offenders in conflict with staff members, offenders concerned about their safety, offenders who experience regrets about the past, concerns about the future, and challenges following rules (Blowers & Blevins, 2015; Rocheleau, 2013). Therefore, the use of aggression amongst the offender population is not surprising given the characteristics of the offender population, the types of strain they face, and the unique nature of the environment they are in (Leban et al., 2016).

Consequences of aggressive behaviour include the loss of lives, personal injury and fear, and monetary costs of increased supervision, higher security, segregation, lengthier sentences and the proliferation of super-maximum security correctional centres (Morse & Wright, 2019; Rocheleau, 2015). Violence inside correctional centres causes harm to individuals and a generalised sense of insecurity. Violence amounts to additional punishment and suffering for offenders on top of the deprivation of liberty (Peirce & Fondevila, 2020). Therefore, reducing aggression amongst offenders is vital (Jordaan & Hesselink, 2022; Weightman et al., 2020).

2.8.3 Age and Coping

The success of coping strategies may differ according to age (Luke et al., 2020). According to Chen et al. (2018), young, middle-aged, and elderly individuals experience varying degrees of exposure and stressors because of their life stages and associated life events. Folkman and Lazarus's (1984) *Transactional Model of Coping and Stress* suggests that age differences in coping strategies may result from changes in what people must cope with as they age. Old age is associated with a higher threshold to appraise an adverse event as a stressor. Elderly and younger individuals may encounter similar adverse events, but they may differ in the probability of labelling this event as a stressor (Monteiro et al., 2014). Hamarat et al. (2001) found that perceived stress decreased with age and that the middle-aged and elderly reported more successful coping strategies than younger adults. However, there remains ambiguity about whether age impacts the effectiveness of coping strategies for offenders (Luke et al., 2020).

Elderly offenders tend to use various coping methods, strategies, or resources to survive their past psychologically and manage their current situation of incarceration (Maschi & Viola, 2015). Picken (2012) found that elderly offenders' use of social coping, including participating in therapeutic groups and communities, is beneficial to their overall adjustment.

Other coping strategies used by elderly offenders include spirituality, religion, and cognitive and physical coping techniques (Maschi et al., 2015). Age for elderly offenders is viewed as a protective factor from being abused by fellow offenders when older offenders are perceived as elders worthy of respect (Smoyer et al., 2019).

However, some elderly offenders may feel distressed, depressed, suicidal, socially disconnected, and have feelings of unsafety during their incarceration (Baidawi & Trotter, 2015; Baidawi et al., 2016; Mueller-Johnson & Dhami, 2010; O'Hara et al., 2016; Opitz-Welke et al., 2019). This is due to some elderly offenders being bullied/extorted, verbally threatened and assaulted more than younger offenders while incarcerated (Trotter & Baidawi, 2015). Elderly offenders may also fear experiencing victimisation from younger offenders, leading to elderly offenders limiting their social engagement/interaction (Trotter & Baidawi, 2015). According to Iftene (2017), elderly offenders also experience deprivations such as lack of medical care as the correctional centre could not provide them with their required healthcare. The frailty and poor health levels in the elderly offender population put them at greater risk for violence and intimidation (Turner et al., 2018). Therefore, according to Blowers and Blevins (2015), elderly offenders are more likely to have difficulty coping with the correctional environment.

Young adult offenders have several characteristics that distinguish them from older offenders, making them more cognitively and socially vulnerable (i.e., deficiencies in decision-making ability, and greater vulnerability to external coercion) (Arredondo, 2003; Sottt & Steinberg, 2008). This is due to young adult offenders lacking the developmental skills required to cope with the challenges of incarceration (Scott & Steinberg, 2008; Valentine et al., 2015). This is because they have fewer resources than adults to help them manage the stress, anxiety and discomfort experienced during incarceration (American Civil Liberties Union, 2014). A study by Shulman and Cauffman (2011) indicated that juvenile

male offenders still exhibited higher levels of misconduct and distress during incarceration despite attempts to engage in coping efforts. For many young offenders, incarceration will be the first significant period they will spend away from their family, friends and home communities. Correctional centres put younger offenders at risk of being physically and sexually assaulted (Valentines et al., 2019). Young offenders are considered vulnerable and ignorant of the rules that govern life in correctional centres. Therefore, they may be threatened or coerced into gangs or regarded as potential wives to other offenders (Man & Cronan, 2001; Schurink, 1989). Thus, young offenders tend to struggle to effectively cope with the stress that confronts them compared to older offenders (Cesaroni & Peterson-Badali, 2010; Shulman & Cauffman, 2011), and this is manifested through aggression and non-compliance with institutional rules and regulations (MacKenzie, 1987; Valentines et al., 2019).

2.8.4 Repeat Offending and Coping

A repeat offender is someone who re-enters the correctional environment after having completed their sentence and then reoffends (D'Alessio & Stolzenberg, 2019; Ndombi, 2014). Padayachee (2008) stated that many offenders return to the correctional environment in less than six months to a year. When it comes to coping in the correctional environment, repeat offenders tend to use adaptive coping methods such as problem-solving and reappraisal (Moritz et al., 2016; Picken, 2012). This is due to their prior experience of being incarcerated (Leban et al., 2016; Picken, 2012), making them less fearful and able to readily identify dangerous situations (Crank, 2010; Mohino et al., 2004; Rogers, 2019). Thus, previous incarceration experience allows them to understand their environment, including other offenders, witness the success and failure of various coping strategies and refine their coping strategies (Leban et al., 2016). This increases their ability to cope and adapt to the correctional environment (Leban et al., 2016). Repeat offenders also tend to see the benefits

of incarceration, which assists them in adjusting and coping. Some repeat offenders focus on improving their health by attending intervention programmes during incarceration (Souza & Dhami, 2010).

This contrasts with first-time offenders who experience the correctional environment as stressful, unpleasant, challenging, and anxiety-provoking (Matshaba, 2007; Souza & Dhami, 2010). First-time offenders are offenders serving their first sentence (Souza & Dhami, 2010). First-time offenders do not know what to expect and are confronted with a completely new environment where they have lost their freedom, are separated from loved ones and are surrounded by strangers (Van Ginneken, 2016). They are required to adapt to adverse conditions, unalterable institutional routines, lack of privacy and autonomy, and subjugated to a reduced, stigmatised reputation (Haney, 2003; Jones & Schmid, 2000; Souza & Dhami, 2010). First-time offenders are often hyper-vigilant and highly aware of the environment that they are in. Out of fear and wanting to be perceived as compliant, first-time offenders are also more likely to follow the rules and policies of the correctional centre (Shine, 2019). Jones and Schmid (2000) conducted an ethnographic study of first-time offenders. They found that first-time offenders experienced heightened fear, anxiety, and concerns about being incarcerated due to preconceived ideas about the correctional environment. This is due to their lack of coping strategies to face the correctional centre (Jones & Schmid, 2000; Legrand et al., 2020). By around the third or fourth month, however, first-time offenders tend to have assimilated and adapted to the repetitive daily routine in correctional centres (Jones & Schmid, 2000). First-time offenders, however, tend to have more social support from family than repeat offenders, which has been shown to positively impact offenders' self-worth and psychological well-being (Duwe & Clark, 2013; Duwe & Johnson, 2016; Souza & Dhami, 2010).

2.9 Summary

This literature review served as a detailed analysis of the research on coping amongst incarcerated male offenders in correctional centres. The study showed the importance of offenders adopting adaptive coping strategies to survive being incarcerated. Furthermore, the literature review showed that maladaptive coping strategies often lead to feelings of anxiety, depression and suicidal behaviour and ideation. At the same time, adaptive coping strategies tend to increase a sense of coping capability and psychological well-being. Therefore, this study aims to identify which variable(s) or combinations of variables can predict coping amongst maximum-security offenders.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Overview of the Chapter

This chapter will discuss the research methodology used in this study to identify the predictor variable(s) or combinations of predictor variables that explain a significant percentage of variance in coping amongst male incarcerated maximum-security offenders. This chapter will begin with exploring the research methodology and research design. Secondly, the sample, data collection procedure, and measuring instruments will be discussed. The measuring instruments included the *Coping Strategy Indicator* (CSI), *Buss and Perry Aggression Questionnaire* (BPAQ), and *Multidimensional Perceived Social Support Scale* (MPSS). Furthermore, the statistical procedure used to analyze the data will be discussed. Chapter three will then conclude with a discussion on ethical considerations and a summary of the chapter.

3.2. Aim of the Study

This research study aimed to determine which predictor variable(s) or combinations of predictor variables explained a significant percentage of variance in coping amongst incarcerated maximum-security male offenders. In this study coping is the criterion (dependent) variable, while perceived social support, aggression, age, and repeat offending are the predictor (independent) variables.

3.3. Research Objective and Questions

To address the research aim of the study, the following research questions were explored:

- Can the combination of aggression, perceived social support, repeat offending, and age explain a significant percentage of the variance in coping amongst incarcerated male maximum-security offenders?
- Can any of the individual predictor variables studied significantly contribute to the variance in coping amongst incarcerated male maximum-security offenders?

3.4. Research Design and Methods

A research design is a logical and systematic outline or research strategy (Peniel, 2016). A research design aims to structure the research process and show how all significant parts of the research project (i.e., the sample, measuring instruments, treatments, methods of assignment) work together to address the central research questions (Peniel, 2016). Akhtar (2016, p. 68) considers the research design the "glue" that holds all the elements in a research project together. The researcher utilised quantitative research methodology in this study, and the study was non-experimental in nature, while a correlational research design (Stangor, 2011, 2015) was used.

Quantitative research involves gathering numerical data so that the information can be assessed and subjected to statistical analyses to support or disprove alternative knowledge claims (Apuke, 2017; Creswell & Creswell, 2018; Peniel, 2016). Quantitative researchers use statistics to analyze the data they have collected to see if their hypotheses about patterns or relationships are supported by the findings in their research (Peniel, 2016). Quantitative research can be divided into experimental, pre-experimental, quasi-experimental and non-experimental research (Creswell & Creswell, 2018)

This study was non-experimental (Stangor, 2011, 2015) in nature. Non-experimental research describes existing phenomena without manipulating variables or controlling the environment (Radhakrishnan, 2013). Secondary data analysis (Tripathy, 2013) was conducted in this study using pre-existing research data to investigate a new research question that is different from the original research study. Secondary data analysis is the statistical analysis of quantitative data previously collected and stored (Neuman, 2014). The use of secondary data saves time, is cost-efficient and gives the researcher access to a data-generating population that may otherwise be impossible to reach (Nkosi, 2018).

Lastly, a correlational research design (Stangor, 2011, 2015) was used in this study as the central goal was to investigate relationships between various variables. Correlational research measures two or more relevant variables to explore the strength, direction, and significance of the relationships between the variables (Asuero et al., 2006; Radhakrishnan, 2013; Kabir, 2016; Stangor, 2011, 2015). However, correlations (relationships) between variables do not imply causation (Kabir, 2016) and merely demonstrate relationships between variables (Stangor, 2011, 2015).

3.5. Research Sample

This research study involves secondary data analysis of an existing data set from a research study titled "*Predictors of prison adjustment amongst male incarcerated offenders in a private-maximum security correctional centre*" (Ethics number: UFS-HSD2017/0939). The research sample consisted of 418 incarcerated male offenders (N=418) from a private maximum-security correctional centre between the ages of 21 and 58 years. The sample consisted of participants of all ages, ethnic groups, types of offenses, sentence lengths, education levels, psychiatric history, gang affiliation, and programme completion.

Participants who could not read, write or understand English were excluded from the original study.

A research sample is a group of people, objects, or items taken from a large population for measurement (Bhardwaj, 2019; Mujere, 2016). Sampling is an essential component of any piece of research because of the significant impact that it can have on the quality of the research findings (Mujere, 2016). The sampling process makes it possible to arrive at generalisations by studying the variables within a relatively small proportion of the population (Mubarak, 2020). A non-probability sampling technique known as convenience sampling was used in the original study to recruit participants, as it posed the least risk to participants, correctional officials, and the researcher. Convenience sampling selects readily accessible or available participants to the researcher (Showkat & Parveen, 2017; Sousa et al., 2007). The advantages of convenience sampling are that it is not costly or time-consuming as other sampling strategies and is simplistic (Stratton, 2021). When no other sampling method is feasible, convenience sampling can be used to develop hypotheses and objectives (Stratton, 2021). A disadvantage of convenience sampling is the fact that not every member of a target population will have an equal chance of being selected (Bhardwaj, 2019; Mackey & Gass, 2021; Neuman, 2014; Stratton, 2021). Therefore, results and research findings cannot be generalised beyond those recruited (Stratton, 2021).

3.6. Data Collection

Data was collected from 418 incarcerated male maximum-security offenders (N=418). The data collection took place over one month. The researcher, along with the Director of Inmate Care and Empowerment at MCC, outlined collecting the necessary data over this one month. Correctional officials employed at the correctional centre played an essential role in the data collection. Due to the high-risk environment of a correctional centre, the researcher

trained correctional officials in the data collection procedure to ensure efficiency during data collection while still ensuring the safety of correctional staff, the researcher and the participants.

Each participant received five questionnaires that measured coping, aggression, adjustment, perceived social support, and demographic information, to complete in a booklet format. The questionnaires took participants between one and two and a half hours to complete depending on the participants' literacy levels. Once the data had been collected, a coding system was utilised to ensure the anonymity of the participants

3.7. Measuring Instruments

The participants in the original study received five separate questionnaires in a booklet format to complete. The questionnaires were then generated on EvaSys, an automated survey software that groups all aspects of the evaluation process, from crafting the questionnaires and mass control of survey procedures to electronic data collection and reporting in one software suite (EvaSys, 2019). Only data from the following questionnaires will be used in this study as the results obtained will be relevant to the aim of the study:

- A self-compiled biographical questionnaire
- The *Coping Strategy Indicator* (CSI)
- The *Buss and Perry Aggression Questionnaire* (BPAQ)
- The *Multidimensional Scale of Perceived Social Support* (MSPSS)

3.7.1 Self-Compiled Biographical Questionnaire

A self-compiled biographical questionnaire was used to collect background information on the male incarcerated offenders, such as (i) type of offense, (ii) age, (iii) sentence length, (iv) offender type, (v) gang affiliation, (vi) drug and alcohol abuse, (vii) ethnicity, etc.

3.7.2 The Coping Strategy Indicator

The *Coping Strategy Indicator* (CSI; Amirkhan, 1990) measured the participants' coping strategies. The CSI has 33 items and three subscales. Each subscale assesses 11 items respectively. The three subscales are (i) Problem Solving, (ii) Seeking Social Support, and (iii) Avoidance. The Problem-solving subscale measures the individual's ability to manipulate their surroundings, while the Seeking Social Support subscale measures how much an individual seeks help from others. Lastly, the Avoidance subscale indicates whether individuals are inclined to avoid situations as part of their coping strategy. The CSI items are rated on a three-point Likert-type scale ranging from 1 ("*Not at all*") to 3 ("*A lot*") (Amirkhan, 1990, 1994; Jordaan & Hesselink, 2022; Joseph & Kuo, 2009; Kirchner et al., 2008; Pretorius et al., 2022). Higher scores on each subscale indicate a higher tendency to use the associated coping strategy (Amirkhan, 1994). The internal consistencies of the subscales have been identified as ranging from .77 to .89 for Problem-solving, .80 to .93 for Seeking Social Support, and .79 to.84 for Avoidance (Amirkhan, 1990, 1994). In the South African context, amongst male-incarcerated offenders, the internal consistencies for these subscales ranged between .68 to .90 for Problem-solving, .72 to .86 for Seeking Social Support, and .62 to.72 for Avoidance (Duba, 2022; Jordaan, 2014; Jordaan & Hesselink, 2022; Jordaan et al., 2018; Pretorius, 2019; Pretorius et al., 2022; Rogers, 2019). The CSI exhibits strong test-retest reliability (Amirkhan, 1990, 1994).

3.7.3 The Buss and Perry Aggression Questionnaire

The *Buss and Perry Aggression Questionnaire* (BPAQ; Buss & Perry, 1992) was used to measure the offenders' levels of aggression. The BPAQ is a self-report questionnaire that consists of 29 items divided into four subscales, namely (i) Physical Aggression, (ii) Verbal Aggression, (iii) Anger, and (iv) Hostility. The items are rated on a five-point Likert-type

scale ranging from 1 ("*Extremely uncharacteristic of me"*) to 5 ("*Extremely characteristic of me*"). Higher scores indicate high levels of aggression on each factor (subscale) (Buss & Perry, 1992). Internal consistencies ranging between .62 and .85 have been identified for the subscales of the BPAQ (Buss & Perry, 1992; Jordaan, 2014; Jordaan & Hesselink, 2022; Jordaan et al., 2018; Loots, 2010; Pretorius, 2019; Pretorius et al., 2022; Rogers, 2019). The BPAQ has mainly been used in studies with university or high school students as research samples (Herzog et al., 2010; Hornsveld et al., 2009; Vigil-Colet et al, 2005). However, Palmer and Thakordas (2005) and Loza and Loza-Fanous (1999a, 1999b) utilised the BPAQ on a sample of incarcerated young adult male offenders. In the South African context Loots (2010), Jordaan (2014), Jordaan et al. (2018), Jordaan and Hesselink (2022), Pretorius et al. (2022), and Rogers (2019) administered the questionnaire on male incarcerated offenders and identified that the internal consistencies of the subscales ranged from .65 to.81 for Physical aggression, .56 to .70 for Verbal aggression, .51 to .78 for Anger and .71 to .87 for Hostility.

3.7.4 The Multidimensional Scale of Perceived Social Support Questionnaire

The *Multidimensional Scale of Perceived Social Support* (MSPSS; Zimet et al., 1988) was used to measure the perceived social support of the offenders. The MSPSS measures individuals' perceived social support using three subscales, namely (i) Friends, (ii) Family, and (iii) Significant Other (Zimet et al., 1988; Rogers, 2019). The 12 items on the MSPSS are measured using a seven-point Likert-type scale ranging from 1 ("*Very strongly disagree*") to 7 ("*Very strongly agree*") (Zimet et al., 1988). The three subscales are scored by determining the mean scale score of the three subscales, and any mean scale score ranging from 1 to 2.9 could be considered low support, a score of 3 to 5 could be regarded as moderate support, and a score from 5.1 to 7 could be viewed as high support (Zimet et al., 1988). A study by Rogers (2019) on a male offender population identified the following internal consistencies for the

MSPSS, namely .86 for Family, .83 for Friends, and .84 for Significant Other. Higher scores indicate higher degrees of perceived social support (Zimet et al., 1988).

3.8 Statistical Procedure and Data Analyses

The data for this research study was analyzed using the Statistical Package for the Social Sciences (Version 28, IBM Incorporated, 2022). SPSS can be used for univariate, bivariate, and multivariate modelling techniques (Denis, 2018). The measuring instruments' internal consistencies (Cronbach alpha coefficients and Omega coefficients) were calculated for the various scales to ensure reliability. Descriptive statistics were calculated for the sample and measuring instruments (i.e., skewness, kurtosis). Descriptive statistics summarise data in an organised manner by describing, aggregating, and presenting a particular group or situation (Akhtar, 2016; Kaur et al., 2018; Marshall & Jonker, 2010; Neuman, 2014). Calculating descriptive statistics is a critical part of initial data analysis and provides the foundation for comparing variables (Kaur et al., 2018).

Pearson correlations were then calculated to investigate the relationships between the variables, namely coping, perceived social support, aggression, age, and repeat offending. Correlational research measures two or more relevant variables and assesses the relationships between those variables (Asuero et al., 2006; Stangor, 2011). The goal of correlational research is to uncover variables that show systematic relationships with each other (Stangor, 2011). The Pearson Product Moment Correlation coefficient is the most common measure of relationships between variables. The correlation coefficient, denoted *r*, measures the strength, direction, and significance of the linear relationships between variables. It can assume any value in the interval between +1.00 and -1.00 (Ratner, 2009). The advantage of correlational research is that it can be used to assess behaviour in people’s everyday lives. However, correlational studies cannot be used to identify causal relationships among the variables.

Therefore, correlational research is limited to demonstrating relationships between variables (Stangor, 2011).

Furthermore, hierarchical multiple regression analyses were conducted to identify which individual predictor variable(s) or combination(s) of predictor variables explained a significant percentage of the variance of coping amongst adult male maximum-security offenders. Regression analysis is a statistical technique for investigating and modelling the relationship between variables (Montgomery et al., 2012). Hierarchical multiple regression analysis refers to the procedure utilised by the researcher when predictor (independent) variables are added to the regression equation (model) in a predetermined order to predict the outcome (criterion) variable (Stangor, 2011, 2015). Hierarchical multiple regression analyses allowed the researcher to investigate different combinations of predictor variables and the contribution of individual predictor variables. In this study, the predictor variables included perceived social support (e.g., Friends, Family, Significant Other), aggression (e.g., Physical Aggression, Verbal Aggression, Anger, Hostility), and demographic variables (Age, Repeat Offending), and the criterion variable was male adult maximum-security offenders' coping (e.g., Problem-solving, Seeking Social Support, Avoidance).

However, because the hierarchical regression analyses did not deliver any practically significant results for the independent variables, a decision was made to conduct stepwise regression analyses. Stepwise regression analyses search among the set of variables to find the predictor variable(s) that produces the highest "*F*" value (Huberty, 1989; Snyder, 1991; Stangor, 2011, 2015; Thompson, 1985; Thompson, 1989; Wang & Chen, 2016). Entered predictors are deleted in subsequent steps if they no longer contribute appreciable unique predictive power to the regression when considered in combination with newly entered predictors (Thompson, 1989). The result of this process is a single regression model. The stepwise regression analysis has either forward or backward analysis. The forward

progression is more commonly encountered than backward analysis (Wang & Chen, 2016). However, accurate stepwise entry differs from forward entry in that at each step of a stepwise analysis, the removal of each entered predictor is also considered (Snyder, 1991). A limitation of stepwise regression is that some real descriptive variables that have a causal impact on the dependent variable may not appear statistically significant. In contrast, nuisance variables may be unpredictably significant. Due to this, the model may fit the data well in the sample but ultimately does not fit well out of the sample (Lewis, 2007).

3.9 Ethical Considerations

This research study utilised an existing data set of a previous study titled "*Predictors of prison adjustment amongst male incarcerated offenders in a private maximum-security correctional centre"* (Ethics number: UFS-HSD2017/0939). The original study obtained ethical clearance from the General and Human Research Ethics Committee (GHREC) at the University of the Free State and the Department of Correctional Services (DCS). Ethical considerations aligned with secondary data analysis were upheld (i.e., the study's outcomes will not result in any damage or distress to participants) (Tripathy, 2013; Tubaro, 2016). The issue of informed consent cannot be presumed in secondary data analysis. Therefore, in the previous study, informed consent was obtained from all the participants. Ethical clearance was also obtained from the GHREC for this research study (Ethics number: UFS-HSD2021/1770/21).

Confidentiality, beneficence, and non-maleficence were upheld during the original study (Allan, 2015). Information regarding the purpose of the original research study was provided to participants through a comprehensive research information leaflet. Before the participants were allowed to participate in the study, informed consent was obtained (see Appendix B). Confidentiality and anonymity were assured to the participants. Participants were also

assured that participation was voluntary and that they may withdraw from the study at any stage. No incentives were provided to participants as motivation to participate. A psychologist and a social worker employed by the correctional centre were arranged to assist with debriefing and counselling offenders who experienced any distress resulting from participating in the original study.

3.10 Summary

This chapter discussed the research methodology utilised in this study, including explaining the research problem and aim. This was followed by an overview of the non-experimental quantitative research approach and the correlational design. The non-probability convenience sampling method and the data collection procedure were explained, and the measuring instruments were introduced. Furthermore, a discussion of the data analysis procedure was presented. Lastly, this chapter included a brief discussion of the ethical considerations involved in this study. The results obtained from the data analysis will be discussed in the next chapter.

CHAPTER FOUR

RESULTS

4.1 Introduction

The results of the statistical analyses will be discussed in this chapter. Firstly, a discussion on the sample's descriptive statistics will be provided. Secondly, the means, standard deviations, skewness, kurtosis and internal consistencies of the various measuring instruments will be discussed. The results of the correlation analyses will also be presented, followed by the results of the hierarchical regression analyses conducted independently for each subscale of the criterion variable (Problem-solving, Seeking Social Support, and Avoidance). Only findings that are both statistically and practically significant will be discussed. Therefore, only findings with medium to large effect sizes will be elaborated on.

For correlations, Steyn (2005) stated that an effect size of .1 is considered to be small, an effect size of .3 is considered to be medium, and an effect size of .5 is considered to be large. The hierarchical regression analyses conducted for the criterion variable (Coping) will be explored in detail. Results examined and reported on will only include those that indicate at least a medium effect size and are statistically significant. According to Cohen (1992), an effect size of .02 is considered to be small, an effect size of .15 is considered to be medium, and an effect size of .35 is considered to be large. Both the 1% and 5%-levels of significance were used in the analyses of the data.

4.2 Descriptive Statistics

As mentioned in Chapter 3, the original study's sample consisted of 418 (N = 418) incarcerated male maximum-security offenders. The incarcerated male maximum-security offenders were from different ages, ethnic groups, types of offenders (first-time offender vs

repeat offender), types of offenses, sentence lengths, and gangs among other inclusion criteria.

The frequencies for the research sample, as illustrated in Table 1, are calculated in terms of their ethnicity, home language, marital status, employment status at the time of the arrest/incarceration, educational level, previous psychiatric history, offender type, type of offense, sentence length, part of the sentence served, finding incarceration difficult, finding incarceration easier than the outside world, substance abuse before incarceration, programme involvement in the correctional environment, involvement in institutional misconduct, gang involvement in the correctional environment, and gang affiliation.

Table 1

Frequency distribution of the participants according to the demographic variables

Demographic variable	***n***	**%**
Ethnicity		
Black	349	83.5
White	11	2.6
Coloured	58	13.9
Home language		
Sesotho	192	45.9
Setswana	47	11.2
IsiXhosa	53	12.7
IsiZulu	45	10.8
IsiNdebele	1	.2
Tswana	5	1.2
Afrikaans	61	14.6
English	14	3.3
Marital status		
Not married and not in a relationship	238	56.9
Married	38	9.1
Common law marriage/living together	21	5.0
In a serious relationship	92	22.0

Demographic variable	***n***	**%**
Divorced	10	2.4
Separated but not divorced	12	2.9
Widower	7	1.7
Employment status at the time of arrest/incarceration		
Employed (full-time)	160	38.3
Employed (part-time)	80	19.1
Unemployed	178	42.6
Education level		
Grade 6 or below	73	17.5
Grade 7 – Grade 11	208	49.8
Grade 12	112	26.8
Post-school certificate	9	2.2
Diploma	10	2.4
Degree	6	1.4
Previous psychiatric history		
Diagnosed previously	56	13.4
Never diagnosed before	362	86.8
Offender type		
First-time offender	227	54.3
Repeat offender	191	45.7
Type of offense		
Homicide (e.g. murder, attempted murder)	79	18.9
Sexual offenses (e.g. rape, sexual assault, indecent assault)	129	30.9
Economic offenses (e.g. theft, fraud, forgery, extortion)	6	1.4
Housebreaking and robbery	47	11.2
Assault and grievous bodily harm	5	1.2
Weapon related offenses (e.g. possession of a weapon)	7	1.7
Other	3	.7
More than one offense indicated	142	34.0
Sentence length		
10 years	3	.7
11 years	0	.0
12 years	5	1.2
13 years	2	.5

Demographic variable	***n***	**%**
14 years	2	.5
15 years	74	17.7
16 years	8	1.9
17 years	4	1.0
18 years	21	5.0
19 years	3	.7
20 years	60	14.4
21 years	1	.2
22 years	13	3.1
23 years	5	1.2
24 years	1	.2
25 years	34	8.1
More than 25 years	182	43.5
Part of the sentence served		
Less than 6 months	13	3.1
Between 6 months and 12 months	22	5.3
Between 13 months and 5 years	253	60.5
Between 6 and 10 years	119	28.5
Between 11 and 15 years	10	2.4
More than 15 years	1	.2
Find incarceration difficult		
Yes	343	82.1
No	75	17.9
Find incarceration easier than the outside world		
Yes	36	8.6
No	382	91.4
Any substance abuse before incarceration		
Yes	204	48.8
No	214	51.2
Programme involvement in the correctional environment		
Yes	349	83.5
No	69	16.5
Involved in institutional misconduct		
Yes	82	19.6

Demographic variable	***n***	**%**
No	336	80.4
Gang involvement in the correctional environment		
Yes	315	75.4
No	103	24.6
Gang affiliation		
26 gang	234	56.0
27 gang	9	2.2
28 gang	29	6.9
Airforce	38	9.1
Big five	2	.5
Other	3	.7
Not applicable	103	24.6

From Table 1, it is evident that in terms of *ethnicity* that 83.5 (*n*=349) of the sample consisted of participants who identified as "Black", followed by 2.6% (*n*=11) of the participants who identified as "White" and lastly 13.9% (*n*=58) of participants identified as "Coloured". Furthermore, the mean age of participants was calculated , with the average age being 33.73 years (*SD* = 6.42231). Regarding *home language*, 45.9% (*n*=192), indicated Sesotho as their home language, 11.2% (*n*=47) indicated Setswana and 12.7% (*n*=53) indicated isiXhosa and 10.8% (*n*=45) indicated isiZulu as their home languages. Only .2% (*n*=1) indicated isiNdebele, 1.2% (*n*=5) indicated Tswana, 14.6% (*n*=61) indicated Afrikaans and 3.3% (*n*=14) of the sample indicated English as their home language.

For *marital status*, 56.9% (*n*=238), selected their marital status as not married and not in a relationship followed by 9.1% (*n*=38) who were legally married. Five percent (*n*=21) of the participants indicated that they were in a common law marriage/living together and 22% (*n*=92) indicated that they were in a serious relationship. Furthermore, 2.4% (*n*=10) of the participants in the sample were divorced, 2.9% (*n*=12) were separated but not divorced and 1.7% of the sample (*n*=7) indicated that they were widowed. Regarding *employment status at*

the time of arrest/incarceration, the results showed that 38.3% (*n*=160) of the participants were employed full-time, 19.1% (*n*=80) were employed part-time and 42.6% (*n*=178) of the participants were unemployed at the time of arrest/incarceration

Regarding *educational level,* 17.5% (*n*=73) had an education level below Grade 6 while the majority of the participants in the sample group (49.8%; *n*=208) had an educational level between Grade 7 and Grade 11. Furthermore 26.8% (*n*=112) of the participants had completed their Grade 12, while 2.2% (*n*=9) had a post-school certificate, 2.4% (*n*=10) had a diploma and 1.4% (*n*=6) of the participants had a degree. Pertaining to the *previous psychiatric history* of the offenders, 13.4% (*n*=56) of the sample had been diagnosed with a psychiatric disorder before. However, 86.8% (*n*=362) of the incarcerated offenders in the sample had not been previously diagnosed with a psychiatric disorder. Regarding the *offender type* classification, 54.3% (*n*=227) indicated that they were first-time offenders (incarcerated for the first-time) and had no prior incarceration experience. In contrast, 45.7% (*n*=191) of the participants were repeat offenders and had been incarcerated twice or three times before their current sentence.

Results for the *type of offense* classification indicated that 18.9% (*n*=79) of the participants were incarcerated for a homicide offense, including murder and attempted murder. Offenses of a sexual nature, including rape, sexual assault and indecent assault, were prevalent in 30.9% (*n*=129) of the participants. Housebreaking and robbery accounted for 11.2% (*n*=47), while less than 5% of offenses were made up of economic offenses (1.4%; *n*=6) and weapons and assault-type offenses (1.7%: *n*=7). Other offenses were only accounted for by .7% (*n*=3) of the sample and included crimes such as a bank or cash-in-transit heists. Lastly, results indicated that 34% (*n*=142) of the participants in the sample were currently incarcerated for more than one offense, typically a sexual and murderous offense combined or a murderous and sexual offense coupled with a weapons, assault or housebreaking offense.

The *length of the sentence* ranged between 10 years and more than 25 years, or an effective life sentence. This is due to the correctional centre only housing maximum-security offenders. 43.5% (*n*=182) of the sample group are serving more than 25 years or life sentences. 17.7% (*n*=74) of the participants are serving 15-year sentences, followed by 14.4% (*n*=60) of offenders serving 20 years. Only 8.1% of the sample (*n*=34) are serving 25-year sentences. The *part of sentence served* classification indicated that 60.5% (*n*=253) of the incarcerated offenders in the sample group had completed between 13 months and 5 years of their sentences. Those that served between 6 and 10 years of their current sentences accounted for 28.5% (*n*=119) of the sample group, while 5.3% (*n*=22) had served between 6 and 12 months of their sentence. 3.1% (*n*=13) of the sample group had served less than 6 months of their sentence and were still adjusting to the correctional environment. Only 2.4% (*n*=10) of the sample had served between 11 and 15 years, with only .2% (*n*=1) having served more than 15 years of their current sentence.

Results indicated that 82.1% (*n*=343) of the participants found *incarceration difficult,* while 17.9% (*n*=75) indicated that they didn't find incarceration to be difficult. Furthermore, 8.6% (*n*=36) of the participants of offenders found *incarceration to be easier than the outside world*, while 91.4% (*n*=382) indicated that incarceration was not easier than the outside world. Regarding *substance abuse before incarceration*, 51.2% (*n*=214) answered that they did not have a problem with drugs and alcohol. The remaining 48.8% (*n*=204) reported that drugs and alcohol had been problematic before their incarceration. Regarding *programme involvement,* 83.5% (*n*=349), of the participants indicated that they were involved in programmes in the correctional centre. In comparison, 16.5% (*n*=69) stated that they were not involved in programmes in the correctional environment.

With regards to *institutional misconduct involvement,* 19.6% (*n*=82) of the participants indicated that they were involved in institutional misconduct, while 80.4% (*n*=336) stated

that they were not engaged in institutional misconduct. A further 75.4% (*n*=315) of the participants indicated that they were *involved in gangs* and 24.6% (*n*=103) indicated that they were not. Regarding *gang affiliation*, 56% (*n*=234) of the participants in the sample indicated that they are members of the 26 gang, while 9.1% (*n*=38) reported that they were part of the Airforce gang. Furthermore, 6.9% (*n*=29) indicated that they were part of the 28 gang, with 2.2% (*n*=9) being part of the 27 gang. Lastly, .5% (*n*=2) of the participants were Big Five members, and .7% (*n*=3) of the offenders were part of other gangs.

4.3 Means, Standard Deviations, Skewness, Kurtosis and Internal Consistencies of the Various Measuring Instruments

The means, standard deviations, skewness, kurtosis, as well as internal consistencies of the various subscales of the measuring instruments are reported in Table 2 for the entire group of participants. Cronbach's alpha coefficient (α) and Omega coefficient (ω) were calculated as an indication of the internal consistency of the subscales.

Table 2

Descriptive statistics and reliability coefficients for the CSI subscales, BPAQ subscales, and MSPSS subscales

Measures	*N*	*M*	*SD*	α	ω	Skewness	Kurtosis
CSI							
Problem-solving	418	1.4343	.36571	.800	.801	1.296	2.090
Seeking Social Support	418	1.7351	.46074	.847	.849	.565	-.132
Avoidance	418	1.7682	.33014	.634	.614	.409	.368
BPAQ							
Physical Aggression	418	2.4825	.74669	.700	.975	.153	-.333
Verbal Aggression	418	2.9933	.93098	.633	.616	-.142	-.646
Anger	418	2.6743	.79826	.619	.764	.017	-.316
Hostility	418	2.7216	.93038	.802	.800	.106	-.585
MSPSS							
Family	418	5.1382	1.75446	.864	.866	-.900	-.221
Friends	418	3.9462	1.45880	.826	.829	-.054	-.880
Significant Other	418	4.7578	1.75580	.841	.830	-.512	-.743

Table 2 indicates that the Cronbach alpha coefficients for the CSI subscales, BPAQ subscales, and MSPSS subscales range from .619 to .864. Table 2 also indicates that the Omega coefficients for the CSI subscales, BPAQ subscales, and MSPSS subscales range from .614 to .975. These scales, therefore, displayed acceptable to excellent levels of internal consistency (Vogt, 2005) and were thus all included in the subsequent analyses. As part of the descriptive statistics in this table, the researcher investigated whether the data is normally distributed by calculating the skewness and kurtosis values of the different subscales. According to Kahane (2008), the cut-off point for skewness is > |2| and kurtosis > |4|. Thus, it is clear from Table 2 that the scores on all the subscales are within these cut-off points and do not deviate substantially from normality.

4.4 Correlations between Variables

Pearson correlations were calculated for the independent (predictor) variables, namely Aggression (e.g., Physical Aggression, Verbal Aggression, Anger, and Hostility), Perceived Social Support (e.g., Family, Friends, and Significant Others), Age, and Repeat Offending, as well as the dependent (outcome) variable, namely Coping (e.g., Problem-solving, Seeking Social Support, and Avoidance), prior to conducting the regression analyses. To use the Repeat Offending variable, the researcher created two categories for the variable, namely First-time offender (coded 1) versus Repeat offender (coded 2). All the assumptions of correlational analyses (i.e., normality, linearity, homoscedasticity) were met. Table 3 illustrates the correlation coefficients.

Table 3 indicates that Seeking Social Support has a statistically significant negative relationship with Friends. This correlation is statistically significant at the 1% level with an effect size with a tendency towards a medium effect size (.27). This finding seems to suggest that incarcerated male offenders tend to be more inclined to make use of social support as a coping strategy when they perceive the social support from friends to be low. This finding

might also suggest that when incarcerated male offenders perceive the social support from friends to be high that they then tend to make less use of social support as a coping strategy.

Table 3

Correlations between the CSI subscales and the BPAQ subscales, MSPSS subscales, Age, and Repeat Offending (N=418)

	1	2	3	4	5	6	7	8	9	10	11	12
1. PS	-	.46**	.24**	.17**	-.05	.13**	.12*	-.17**	-.08	-.15**	.03	.05
2. SSS		-	.05	.08	-.02	.11*	.20**	-.16**	-.27**	-.21**	.03	.10*
3. AV			-	-.11*	-.02	-.11*	-.13**	.04	.13**	.10*	.14**	-.03
4. PA				-	.22**	.56**	.42**	-.09	-.03	-.12*	.01	.22**
5. VA					-	.46**	.42**	.13**	.04	.13**	-.01	.05
6. AN						-	.59**	-.08	-.12*	-.06	-.07	.14**
7. HOS							-	-.02	-.17**	-.08	-.03	.05
8. FAM								-	.40**	.72**	.01	-.12**
9. FRI									-	.42**	-.03	-.10
10. SO										-	.02	-.06
11. AGE											-	-.01
12. RO												-

Key: PS = Problem-solving, SSS = Seeking Social Support, AV = Avoidance, PA = Physical Aggression, VA = Verbal Aggression, AN = Anger, HOS = Hostility, FAM = Family, FRI = Friends, SO = Significant Other, RO = Repeat Offending

* $p \leq .05$ ** $p \leq .01$

4.5 Hierarchical Regression Analyses

This study also included an investigation regarding the percentage of the variance in each of the subscales of the CSI (Problem-solving, Seeking Social Support, and Avoidance), as accounted for by the independent (predictor) variables. Hierarchical regression analyses were conducted to examine the contribution of the different combinations of predictor variables (aggression, perceived social support, age, and repeat offending) to the percentage of variance in Coping as well as the contribution of each of the individual independent (predictor) variables. Coping was measured using three different subscales, namely Problem-Solving, Seeking Social Support and Avoidance. Three hierarchical regression analyses were conducted with one of the Coping subscales as a criterion variable. All the assumptions of regression analyses (i.e., normality, multi-collinearity, and normality, linearity and homoscedasticity of residuals) were investigated and none of the assumptions were violated. Firstly, the percentage in the variance of Problem-solving explained by these predictors (independent) variables will be discussed.

4.5.1 Hierarchical regression analysis with Problem-solving as a criterion variable

The results of the hierarchical regression analysis with Problem-solving as the criterion variable are reported in Table 4.

Table 4

Contributions of Age, Repeat Offending, the MSPSS subscales, and the BPAQ subscales to R^2 with Problem-solving as Criterion Variable

Variables in equation	R^2	*Contribution to R^2: full minus reduced model*	*F*	f^2
1. [Age+RO] + [FAM+FRI+SO] + [PA+VA+AN+HOS]	.072	1-6=.049	5.386**	.05
2. [Age+RO] + [FAM+FRI+SO] + PA	.057	2-6=.034	14.819**	.04
3. [Age+RO] + [FAM+FRI+SO] + VA	.034	3-6=.011	4.680*	.01
4. [Age+RO] + [FAM+FRI+SO] + AN	.048	4-6=.025	10.793**	.03
5. [Age+RO] + [FAM+FRI+SO] + HOS	.046	5-6=.023	9.909**	.02
6. [Age+RO] + [FAM+FRI+SO]	.023			
7. [Age+RO] + [PA+VA+AN+HOS] + [FAM+FRI+SO]	.072	7-11=.019	2.784**	.02
8. [Age+RO] + [PA+VA+AN+HOS] + FAM	.071	8-11=.018	7.944**	.02
9. [Age+RO] + [PA+VA+AN+HOS] + FRI	.055	9-11=.002	.868	-
10. [Age+RO] + [PA+VA+AN+HOS] + SO	.064	10-11=.011	4.818*	.01
11. [Age+RO] + [PA+VA+AN+HOS]	.053			
12. [PA+VA+AN+HOS] + [FAM+FRI+SO] + [Age+RO]	.072	12-15=.002	.440	-
13. [PA+VA+AN+HOS] + [FAM+FRI+SO] + Age	.072	13-15=.002	.882	-
14. [PA+VA+AN+HOS] + [FAM+FRI+SO] + RO	.070	14-15=.000	-	-
15. [PA+VA+AN+HOS] + [FAM+FRI+SO]	.070			

Key: PA = Physical Aggression, VA = Verbal Aggression, AN = Anger, HOS = Hostility, FAM = Family, FRI = Friends, SO = Significant Other, RO = Repeat Offending

* p≤.05 ** p≤.01

It is evident from Table 4 that the combination of the independent (predictor) variables accounts for 7.2% ($F_{9;408}$ = 3.491; $p \leq$,001) of the variance in the Problem-solving scores of the sample. Table 4 further indicates that the BPAQ subscales (Physical Aggression, Verbal Aggression, Anger, and

Hostility) as a set (combination) of predictor variables, account for 4.9% of the variance in the Problem-solving scores of the offenders. This finding is statistically significant at the 1% level and the corresponding effect size (f^2 = .05) suggests that this finding is of little practical significance. Physical Aggression, Verbal Aggression, Anger, and Hostility respectively explain 3.4% ($F_{6;411}$ = 14.819; $p \leq$ .01; f^2 = .04), 1.1% ($F_{6;411}$ = 4.680; $p \leq$ .05; f^2 = .01), 2.5% ($F_{6;411}$ = 10.793; $p \leq$ .01; f^2 = .03), and 2.3% ($F_{6;411}$ = 9.909; $p \leq$ .01; f^2 = .02) of the variance in the participants' problem-solving. The relevant effect sizes suggest that these findings are of limited practical significance.

According to Table 4, the MSPSS subscales (Family, Friends, and Significant Others) as a set (combination) of predictor variables, account for 1.9% of the variance in the Problem-solving scores of the incarcerated male offenders. This finding is statistically significant at the 1% level and the corresponding effect size (f^2 = .02) suggests that this finding is of little practical significance. Family and Significant Other respectively explain 1.8% ($F_{7;410}$ = 7.944; $p \leq$ .01; f^2 = .02) and 1.1% ($F_{7;410}$ = 4.818; $p \leq$ .05; f^2 = .01) of the variance in the participants' problem-solving. The relevant effect sizes suggest that these findings are of limited practical significance.

4.5.2 Hierarchical Regression Analysis with Seeking Social Support as a Criterion Variable

The results of the hierarchical regression analysis with Seeking Social Support as the criterion variable are reported in Table 5.

Table 5

Contributions of Age, Repeat Offending, the MSPSS subscales, and the BPAQ subscales to R^2 with Seeking Social Support as Criterion Variable

Variables in equation	R^2	*Contribution to R^2: full minus reduced model*	*F*	f^2
1. [Age+RO] + [FAM+FRI+SO] + [PA+VA+AN+HOS]	.119	1-6=.041	4.747**	.05
2. [Age+RO] + [FAM+FRI+SO] + PA	.091	2-6=.013	5.878*	.01
3. [Age+RO] + [FAM+FRI+SO] + VA	.089	3-6=.011	4.963*	.01
4. [Age+RO] + [FAM+FRI+SO] + AN	.093	4-6=.015	6.797**	.02
5. [Age+RO] + [FAM+FRI+SO] + HOS	.112	5-6=.034	15.737**	.04
6. [Age+RO] + [FAM+FRI+SO]	.078			
7. [Age+RO] + [PA+VA+AN+HOS] + [FAM+FRI+SO]	.119	7-11=.055	8.490**	.06
8. [Age+RO] + [PA+VA+AN+HOS] + FAM	.082	8-11=.018	8.039**	.02
9. [Age+RO] + [PA+VA+AN+HOS] + FRI	.110	9-11=.046	21.191**	.05
10. [Age+RO] + [PA+VA+AN+HOS] + SO	.094	10-11=.030	13.576**	.03
11. [Age+RO] + [PA+VA+AN+HOS]	.064			
12. [PA+VA+AN+HOS] + [FAM+FRI+SO] + [Age+RO]	.119	12-15=.007	1.621	.01
13. [PA+VA+AN+HOS] + [FAM+FRI+SO] + Age	.113	13-15=.001	.461	-
14. [PA+VA+AN+HOS] + [FAM+FRI+SO] + RO	.118	14-15=.006	2.782	.01
15. [PA+VA+AN+HOS] + [FAM+FRI+SO]	.112			

Key: PA = Physical Aggression, VA = Verbal Aggression, AN = Anger, HOS = Hostility, FAM = Family, FRI = Friends, SO = Significant Other, RO = Repeat Offending

* p≤.05 ** p≤.01

It is evident from Table 5 that the combination of the independent (predictor) variables accounts for 11.9% ($F_{9;408} = 6.102$; $p \leq ,001$) of the variance in the Seeking Social Support scores of the sample. Table 5 further indicates that the BPAQ subscales (Physical Aggression, Verbal Aggression, Anger, and Hostility) as a set (combination) of predictor variables, account for 4.1% of the variance in the Seeking Social Support scores of the male offenders. This finding is statistically significant at the 1%

level and the corresponding effect size (f^2 = .05) suggests that this finding is of little practical significance. Physical Aggression, Verbal Aggression, Anger, and Hostility respectively explain 1.3% ($F_{6;411}$ = 5.878; $p \leq .05$; f^2 = .01), 1.1% ($F_{6;411}$ = 4.963; $p \leq .05$; f^2 = .01), 1.5% ($F_{6;411}$ = 6.797; $p \leq .01$; f^2 = .02), and 3.4% ($F_{6;411}$ = 15.737; $p \leq .01$; f^2 = .04) of the variance in the participants' seeking social support. The relevant effect sizes suggest that these findings are of limited practical significance.

According to Table 4, the MSPSS subscales (Family, Friends, and Significant Others) as a set (combination) of predictor variables, account for 5.5% of the variance in the Seeking Social Support scores of the incarcerated male offenders. This finding is statistically significant at the 1% level and the corresponding effect size (f^2 = .06) suggests that this finding is of little practical significance. Family, Friends, and Significant Other respectively explain 1.8% ($F_{7;410}$ = 8.039; $p \leq .01$; f^2 = .02), 4.6% ($F_{7;410}$ = 21.191; $p \leq .01$; f^2 = .05), and 3.0% ($F_{7;410}$ = 13.576; $p \leq .01$; f^2 = .03) of the variance in the participants' seeking social support. The relevant effect sizes suggest that these findings are of limited practical significance.

4.5.3 Hierarchical Regression Analysis with Avoidance as Criterion Variable

The results of the hierarchical regression analysis with Avoidance as the criterion variable are reported in Table 6.

Table 6

Contributions of Age, Repeat Offending, the MSPSS subscales, and the BPAQ subscales to R^2 with Avoidance as Criterion Variable

Variables in equation	R^2	*Contribution to R^2: full minus reduced model*	*F*	f^2
1. [Age+RO] + [FAM+FRI+SO] + [PA+VA+AN+HOS]	.057	1-6=.020	2.163*	.02
2. [Age+RO] + [FAM+FRI+SO] + PA	.052	2-6=.015	6.503*	.02
3. [Age+RO] + [FAM+FRI+SO] + VA	.043	3-6=.006	2.577	.01
4. [Age+RO] + [FAM+FRI+SO] + AN	.050	4-6=.013	5.624*	.01
5. [Age+RO] + [FAM+FRI+SO] + HOS	.052	5-6=.015	6.503*	.02
6. [Age+RO] + [FAM+FRI+SO]	.037			
7. [Age+RO] + [PA+VA+AN+HOS] + [FAM+FRI+SO]	.057	7-11=.016	2.308*	.02
8. [Age+RO] + [PA+VA+AN+HOS] + FAM	.041	8-11=.000	-	-
9. [Age+RO] + [PA+VA+AN+HOS] + FRI	.053	9-11=.012	5.195*	.01
10. [Age+RO] + [PA+VA+AN+HOS] + SO	.046	10-11=.005	2.149	.01
11. [Age+RO] + [PA+VA+AN+HOS]	.041			
12. [PA+VA+AN+HOS] + [FAM+FRI+SO] + [Age+RO]	.057	12-15=.018	3.894*	.02
13. [PA+VA+AN+HOS] + [FAM+FRI+SO] + Age	.057	13-15=.018	7.807**	.02
14. [PA+VA+AN+HOS] + [FAM+FRI+SO] + RO	.039	14-15=.000	-	-
15. [PA+VA+AN+HOS] + [FAM+FRI+SO]	.039			

Key: PA = Physical Aggression, VA = Verbal Aggression, AN = Anger, HOS = Hostility, FAM = Family, FRI = Friends, SO = Significant Other, RO = Repeat Offending

* $p \leq .05$ ** $p \leq .01$

It is evident from Table 6 that the combination of the independent (predictor) variables accounts for 5.7% ($F_{9;408} = 2.738$; $p \leq .01$) of the variance in the Avoidance scores of the sample. Table 6 further indicates that the BPAQ subscales (Physical Aggression, Verbal Aggression, Anger, and Hostility) as a set (combination) of predictor variables, account for 2.0% of the variance in the Avoidance scores of the male offenders. This finding is statistically significant at the 5% level and the corresponding effect size ($f^2 = .02$) suggests that this finding is of little practical significance. Physical Aggression, Anger, and Hostility respectively explain 1.5% ($F_{6;411} = 6.503$; $p \leq .05$; $f^2 = .02$), 1.3% ($F_{6;411} = 5.624$; $p \leq .05$; $f^2 = .01$), and 1.5% ($F_{6;411} = 6.503$; $p \leq .05$; $f^2 = .02$) of the variance in the participants' avoidance. The relevant effect sizes suggest that these findings are of limited practical significance.

According to Table 6, the MSPSS subscales (Family, Friends, and Significant Others) as a set (combination) of predictor variables, account for 1.6% of the variance in the Avoidance scores of the incarcerated male offenders. This finding is statistically significant at the 5% level and the corresponding effect size ($f^2 = .02$) suggests that this finding is of little practical significance. Friends explains 1.2% ($F_{7;410} = 5.195$; $p \leq .05$; $f^2 = .01$) of the variance in the participants' avoidance. The relevant effect size suggests that this finding is of limited practical significance.

Finally, Table 6 shows that the two demographic variables (Age and Repeat Offending) as a set (combination) of predictor variables account for 1.8% of the variance in the Avoidance scores of the incarcerated male offenders. This finding is statistically significant at the 5% level and the corresponding effect size ($f^2 = .02$) suggests that this finding is of little practical significance. Age explains 1.8% ($F_{8;409} = 7.807$; $p \leq .01$; $f^2 = .02$) of the variance in the participants' avoidance. The relevant effect size suggests that this finding is of limited practical significance.

4.6 Stepwise Regression Analyses

Due to the fact that the hierarchical regression analyses did not deliver any practically significant results for any of the combinations of the independent (predictor) variables or individual independent (predictor) variables, a decision was made to conduct a stepwise regression analyses in order to determine:

- Which of these nine independent (predictor) variables explained the most variance of each of the criterion variables;
- Whether this independent variable explained a significant percentage of variance of the criterion variable;
- If any of the remaining independent variables also explained a significant percentage of the variance of the criterion variable;
- If more than one independent variable was added to the regression equation and whether the combined set of independent variables explained a significant percentage of the variance.

In order to interpret the statistical results in terms of effect sizes, Steyn (2005) recommended that the following guidelines be used to interpret the proportional variance explained by the different independent variables: $\rho^2 = .01$ (small); $\rho^2 = .10$ (medium) and $\rho^2 = .25$ (large) effect. The 1% level of significance was used. The analyses were performed for the three criterion variables (Problem-solving, Seeking Social Support, and Avoidance) independently.

4.6.1 Stepwise Regression Analysis with Problem-solving as criterion variable

The results of the stepwise regression analysis with Problem-solving as the criterion variable are reported in Table 7.

Table 7

Stepwise regression analysis with Problem-solving as criterion variable

				Change statistics		
Step	Variable entered N = 418	Partial R^2	Model R^2	F-value	Direction of relationships with Problem-solving	Pr > F
1	Friends	.030	.030	12.990	Negative	.001**
2	Physical Aggression	.025	.055	10.975	Positive	.001**

**p≤0.01

All nine predictor variables resulted in an explanation of a combined 7.2% ($F_{9;408}$ = 3.491; $p \leq$,001) of the variance in the Problem-solving scores of the sample.

In Step 1 of the stepwise regression analysis, the independent variable, Friends, was first entered into the regression equation and found to be significant on the 1% level of significance. Friends accounted for 3.0% of the variance of Problem-solving (F = 12.990, p≤.01). A negative correlation between Friends and Problem-solving was found. This finding implies that those participants that perceive less social support from their friends will seemingly have better problem-solving skills. However, the corresponding effect size ($\wp^2$ = .03) indicates that the finding is not of any practical significance.

In Step 2, the independent variable, Physical Aggression, was added to the regression equation. Physical Aggression contributed an additional 2.5% to the variance of Problem-solving on the 1% level of significance (F = 10.975, p≤.01). The corresponding effect size ($\wp^2$ = .03) for the partial R^2 indicates that the contribution of Physical Aggression is not of practical importance. Combined, these two independent variables, Friends and Physical Aggression, accounted for 5.5% (p≤.01) of the variance in the offenders' Problem-solving. The corresponding effect size ($\wp^2$ = .06) indicates that the contribution of these two independent (predictor) variables in combination is of no practical importance. A positive correlation was found between Physical Aggression and Problem-solving,

which implies that when participants have higher levels of physical aggression that they tend to make more use of problem-solving as a coping strategy.

From the discussion, it is evident that these **two** independent (predictor) variables succeeded in explaining 5.5% of the total variance in Problem-solving, whilst the remaining seven independent (predictor) variables (7.2%-5.5%=1.7%) in combination only explained an additional 1.7% to the variance in Problem-solving.

4.6.2 Stepwise Regression Analysis with Seeking Social Support as Criterion Variable

The results of the stepwise regression analysis with Seeking Social Support as the criterion variable are reported in Table 8.

Table 8

Stepwise regression analysis with Seeking Social Support as criterion variable

				Change statistics		
Step	Variable entered N = 418	Partial R^2	Model R^2	F-value	Direction of relationships with Seeking Social Support	Pr > F
1	Friends	.071	.071	31.570	Negative	.001**
2	Hostility	.024	.095	11.351	Positive	.001**

**p≤0.01

All nine predictor variables resulted in an explanation of a combined 11.9% ($F_{9;408}$ = 6.102; $p \leq$,001) of the variance in the Seeking Social Support scores of the sample.

In Step 1 of the stepwise regression analysis, the independent variable, Friends, was first entered into the regression equation and found to be significant on the 1% level of significance. Friends accounted for 7.1% of the variance of Seeking Social Support (F = 31.570, p≤.01). A negative correlation between Friends and Seeking Social Support was found. This finding implies that those participants that perceive more social support from their friends will seemingly be less inclined to seek social support as a coping strategy. However, the corresponding effect size (ϕ^2 = .08) indicates that the finding is not of any practical significance.

In Step 2, the independent variable, Hostility, was added to the regression equation. Hostility contributed an additional 2.4% to the variance of Seeking Social Support on the 1% level of significance ($F = 11.351$, $p \leq .01$). The corresponding effect size ($\wp^2 = .03$) for the partial R^2 indicates that the contribution of Hostility is not of practical importance. Combined, these two independent (predictor) variables, Friends and Hostility, accounted for 9.5% ($p \leq .01$) of the variance in the offenders' Seeking Social Support. Thus, the corresponding effect size ($\wp^2 = .11$) indicates that the contribution of these two independent (predictor) variables in combination is of medium practical importance. A positive correlation was found between Hostility and Seeking Social Support, which implies that when participants have higher levels of hostility that they make more use of seeking social support as a coping strategy.

From the discussion, it is evident that these **two** independent (predictor) variables succeeded in explaining 9.5% of the total variance in Seeking Social Support, whilst the remaining seven independent (predictor) variables (11.9%-9.5%=2.4%) in combination only explained an additional 2.4% to the variance in Seeking Social Support.

4.6.3 Stepwise Regression Analysis with Avoidance as the Criterion Variable

The results of the stepwise regression analysis with Avoidance as the criterion variable are reported in Table 9.

Table 9

Stepwise regression analysis with Avoidance as criterion variable

				Change statistics		
Step	Variable entered N = 418	Partial R^2	Model R^2	F-value	Direction of relationships with Avoidance	Pr > F
1	Age	.019	.019	7.844	Positive	.01**
2	Friends	.018	.037	7.755	Positive	.01**

**p≤0.01

All nine predictor variables resulted in an explanation of a combined 5.7% ($F_{9;408} = 2.738$; $p \leq .01$) of the variance in the Avoidance scores of the sample.

In Step 1 of the stepwise regression analysis, the independent variable, Age, was first entered into the regression equation and found to be significant on the 1% level of significance. Age accounted for 1.9% of the variance of Avoidance ($F = 7.844$, $p \leq .01$). A positive correlation between Age and Avoidance was found. This finding implies that male offenders are more inclined to use avoidance as a coping strategy as they age. However, the corresponding effect size ($\wp^2 = .02$) indicates that the finding is not of any practical significance.

In Step 2, the independent variable, Friends, was added to the regression equation. Friends contributed an additional 1.8% to the variance of Avoidance on the 1% level of significance ($F = 7.755$, $p \leq .01$). The corresponding effect size ($\wp^2 = .02$) for the partial R^2 indicates that the contribution of Friends is not of practical importance. Combined, these two independent (predictor) variables, Age and Friends, accounted for 3.7% ($p \leq .01$) of the variance in the offenders' Avoidance. The corresponding effect size ($\wp^2 = .04$) indicates that the contribution of these two independent (predictor) variables in combination is of no practical importance. A positive correlation was found between Friends and Avoidance, which implies that those participants that perceive more social support from their friends will seemingly be more inclined to use avoidance as a coping strategy.

From the discussion, it is evident that these **two** independent (predictor) variables succeeded in explaining 3.7% of the total variance in Avoidance, whilst the remaining seven independent (predictor) variables (5.7%-3.7%=2.0%) in combination only explained an additional 2.0% to the variance in Avoidance.

4.7 Summary

The results of the statistical analyses were presented in this chapter. According to the results from the hierarchical regression analyses of the predictor variables (BPAQ subscales, MSPSS subscales, Age, and Repeat Offending) statistically significantly predicted all aspects of the CSI (Problem-solving, Seeking Social Support, and Avoidance). However, the contribution to the variance of each of the three criterion variables by the combinations of independent (predictor) variables or individual predictor variables delivered no practically significant findings. Due to these findings, a stepwise regression analysis was also conducted for each criterion variable to explore in more detail which independent (predictor) variables explain a significant percentage of the variance in each criterion variable. The results of the stepwise regression analyses indicated that two of the nine predictor variables, namely Friends and Hostility, made a statistically significant and practically significant contribution to the variance of Seeking Social Support on the 1% level of significance. Chapter five will include a discussion of the results reported within the context of the relevant literature.

CHAPTER FIVE

DISCUSSION

5.1 Introduction

In this chapter, the results presented in chapter four will be discussed in relation to the relevant literature. Chapter five will begin by discussing the internal consistencies of the measuring instruments used in this study. The research questions will then be explored by examining the findings from the correlations, hierarchical regression analyses and stepwise regression analyses. After that, the study's limitations and recommendations for future research will be discussed. Lastly, chapter five will conclude with a summary.

5.2 Discussion of Measuring Instruments

The results of this study were obtained using three measuring instruments, which included the *Coping Strategy Indicator* (CSI; Amirkhan, 1990), *Buss and Perry Aggression Questionnaire* (BPAQ; Buss and Perry, 1992), and the *Multidimensional Scale of Perceived Social Support* (MPSS; Zimet et al., 1998). The internal consistencies (Cronbach alpha coefficient and Omega coefficient) of all the scales ranged from .61 to .98. Therefore, the scales displayed acceptable to exceptional levels of internal consistency (Vogt, 2005).

5.2.1 Coping Strategy Indicator (CSI)

The *Coping Strategy Indicator* was used to measure the coping strategies of the offenders. Adequate to good internal consistencies for the CSI subscales were calculated, ranging from .614 to .634 for Avoidance, .800 to .801 for Problem-solving, and .847 to .849 for Seeking Social Support. These internal consistencies are in line with those reported in previous studies, with internal consistencies ranging from .68 to .90 for Problem-solving, .72 to .88 for Seeking Social Support, and

.62 to .73 for Avoidance (Basson, 2021; Jordaan, 2014; Jordaan & Hesselink, 2022; Jordaan et al., 2018; Pretorius, 2019; Pretorius et al., 2022; Rogers, 2019; Rogers et al., 2022).

5.2.2 Buss and Perry Aggression Questionnaire (BPAQ)

The offenders' levels of aggression were measured using the *Buss and Perry Aggression Questionnaire*. Adequate to exceptional internal consistencies for the BPAQ subscales were calculated, ranging from .619 to .764 for Anger, .616 to .633 for Verbal Aggression, .700 to .975 for Physical Aggression, and .800 to .802 for Hostility. These findings correlate with findings from previous studies, which reported internal consistencies for the BPAQ subscales ranging from .65 to .81 for Physical Aggression, .56 to .72 for Verbal Aggression, .51 to .78 for Anger, and .71 to .87 for Hostility (Buss & Perry, 1992; Jordaan, 2014; Jordaan & Hesselink, 2022; Jordaan et al., 2018; Loots, 2010; Palmer & Thakordas, 2005; Pretorius, 2019; Pretorius et al., 2022; Rogers, 2019; Rogers et al., 2022).

5.2.3 Multidimensional Scale of Perceived Social Support (MSPSS)

The *Multidimensional Scale of Perceived Social Support* was used to measure the perceived social support of the offenders. Good internal consistencies for the MSPSS subscales ranged from .864 to .866 for Family, .826 to .829 for Friends, and .830 to .841 for Significant Others. These findings correlate with previous studies, which reported good to exceptional internal consistencies for the MSPSS subscales ranging from .86 to .90 for Family, .83 to .90 for Friends, and .84 to .89 for Significant Others (Duba, 2022; Rogers, 2019; Rogers et al., 2022).

5.3 Discussion of the Significant Correlations in this Study

This study determined the correlations between the predictor (independent) variables and the criterion (dependent) variables. This included correlations between the three subscales of Coping

(dependent variable) and Perceived Social Support, Aggression, Age and Repeat Offending (independent variables). Several correlations were statistically significant, but only one correlation was both statistically and practically significant. A statistically significant negative correlation was identified between Seeking Social Support and Friends, with the effect size gravitating towards a medium effect size. This finding indicates that incarcerated male offenders tend to be more inclined to use social support as a coping strategy when they perceive their social support from their friends to be low. This finding might also suggest that when incarcerated male offenders perceive the social support from friends to be high, they tend to use social support less as a coping strategy. This finding is corroborated by previous research, which found that offenders seek out friendships to alleviate the pain of incarceration (Sykes, 1958). The mutual support from these friendships reduces uncertainty and fear while increasing the offender's sense of control over the correctional environment (Sinefu, 2014). In a study by Rocheleau (2014), offenders who reported eliciting social support from friends were less likely to be involved in aggressive behaviour. Furthermore, a study by Wulf-Ludden (2013) indicated that friends inside the correctional centre helped male offenders manage their anger. Therefore, when offenders have social support, they may cope and adjust better to the correctional environment (Agbakwuru & Awujo, 2016; Rocheleau, 2015).

5.4 Discussion of the Results from the Hierarchical Regression Analyses

While the combination of the various predictor variables (aggression, perceived social support, age, and repeat offending) statistically significantly explained the percentage of the variance of the criterion variable (Coping), the corresponding effect sizes of these findings indicated that these findings were of limited practical significance. Nonetheless, literature can explain some of these findings as previous literature suggests that these variables can be used to predict coping amongst offenders.

This study revealed that the combination of all the independent (predictor) variables accounts for 7.2% ($F_{9;408}$ = 3.491; $p \leq 001$) of the variance in the Problem-solving scores of male incarcerated offenders. This indicates that the combination of perceived social support, aggression, age and repeat offending explain 7.2% of the variance in problem-solving amongst male incarcerated offenders. Results from the hierarchical regression analyses further showed that the combination of all the independent (predictor) variables accounts for 11.9% ($F_{9;408}$ = 6.102; $p \leq$,001) of the variance in the Seeking Social Support scores of the male incarcerated offenders. This indicates that the combination of perceived social support, aggression, age and repeat offending explain 11.9% of the variance in seeking social support amongst male incarcerated offenders. Lastly, the results from the hierarchical regression analyses showed that the combination of all the independent (predictor) variables accounts for 5.7% ($F_{9;408}$ = 2.738; $p \leq .01$) of the variance in the Avoidance scores of the male incarcerated offenders. This indicates that the combination of perceived social support, aggression, age and repeat offending explain 5.7% of the variance in avoidance amongst male incarcerated offenders.

Overall, the hierarchical regression analyses indicate that the combination of the predictor variables (perceived social support, aggression, age, repeat offending) significantly predicted all aspects of coping (Seeking Social Support, Problem-solving and Avoidance). In terms of *social support,* previous research has indicated that visitations from family and friends outside the correctional environment are associated with improved well-being and mental health (Cochran & Mears, 2013; Skowronski & Talik, 2018; Van Harrevald et al., 2007). Social support can also play a vital role in reducing aggression amongst offenders as it enables them to satisfy their basic needs and find security within the correctional environment (Liu & Chui, 2013; Woo et al., 2016). Thus, contact with individuals outside the correctional environment positively affects offender behaviour and disposition while incarcerated. Offenders isolated from family and friends might experience problems

adjusting to and coping with incarceration (Lahm, 2008). Therefore, this indicates that social networks are an essential source of support for offenders (Mkhize, 2003).

In terms of *aggression,* studies found that offenders tend to use aggression as a maladaptive coping strategy within the correctional environment to cope with the stressors of correctional life (Chahal et al., 2016; DeLisi et al., 2004; Doty et al., 2012; Jordaan & Hesselink, 2022; Lahm, 2008; McCorkle, 1992). Offenders tend to use aggression as a coping strategy in the correctional environment to reinforce control over their own lives during incarceration (Dye, 2010; Doty et al., 2012; Kamoyo et al., 2015; Weightman et al., 2020; Wooldredge, 2020). For example, when privacy and adequate personal space are denied to male offenders, they tend to become particularly stressed. This stress increases physical aggression as a way of coping, and violence becomes an adaptive response (Ireland, 2001; Weightman et al., 2020). The use of aggression is often the supported method of resolving conflict amongst offenders (Ireland, 2002). A study by Leban et al. (2016) showed that offenders believed it was often necessary to handle problems through violence or threats of violence. This is to emphasise dominance over other offenders, protect their reputation, and avoid future victimisation, but also aggressive behaviour gives offenders a sense of empowerment in an environment that renders them powerless (Camlibel et al., 2021; Chahal et al., 2016; Michalski, 2017; Ricciardeli, 2014; Skowronski & Talik, 2018). However, according to Carrizales (2013), offenders with higher levels of aggression tend to be lonelier and more suicidal than offenders with low levels of aggression supporting the rationale for why it is considered maladaptive.

With *age* as a predictor variable, previous studies have found that young offenders struggle to cope effectively with the stress that confronts them during incarceration compared to older offenders (Cesaroni & Peterson-Badali, 2010; Shulman & Cauffman, 2011). Young offenders are still in the process of maturing and thus have fewer psychological or emotional resources than adult offenders to

help them manage the stress, anxiety and discomfort experienced during incarceration (American Civil Liberties Union, 2014; Coylewright, 2004; Social Exclusion Unity [SEU], 2002; Valentine et al., 2015). Their coping strategies involve avoidance, aggressive behaviour, and a temporary escape from their problems without considering the consequences, which tend to worsen their already problematic situations (Chubaty, 2001). However, previous research also suggests that elderly offenders were also found to struggle with coping within the correctional environment due to their frailty, poor health and experience of bullying and assault (Blowers & Blevins, 2015; Trotter & Baidawi, 2015; Turner et al., 2018), and were more inclined to use avoidance as a coping strategy (Ricciardelli, 2014).

Lastly, previous research indicated that *repeat offending* tends to increase offenders' abilities to cope and adapt to the correctional environment (Leban et al., 2016). Repeat offenders are more likely to use adaptive coping methods like problem-solving, which increases their ability to cope and adapt to the correctional environment (Leban et al., 2016; Moritz et al., 2016; Picken, 2012). This is due to their prior experience of incarceration, which allows them to understand their environment, witness the success and failure of various coping strategies, and refine them (Leban et al., 2016; Picken, 2012). This also enables them to be less fearful and to readily identify and avoid dangerous situations (Crank, 2010; Mohino et al., 2004; Rogers, 2019).

5.5 Discussion of the Results from the Stepwise Regression Analyses

The stepwise regression analyses identified that Friends and Physical Aggression as a combination accounted for 5.5% of the total variance in the Problem-solving of the male incarcerated offenders. The results were, however, not of practical significance. Previous research has found that due to the lack of social control and the availability of coping mechanisms during incarceration, offenders utilise aggressive behaviours to reinforce control over their own lives, prove their strength and status and

deter future victimisation (Doty et al., 2012; Ricciardeli, 2014). Thus, aggression is often the supported method of resolving offender conflict (Ireland, 2002). This is supported by a study by Turner and Ireland (2010), where offenders viewed planned violence as an acceptable and useful problem-solving technique. In contrast, offenders in a study by Reid and Listwan (2018, p. 1318) used "proactive precautions", which is taking steps to control a situation. This meant choosing the right friends who were seen as non-violent, admitting when they were wrong in a calm manner or choosing to leave a situation (Reid & Listwan, 2018). Friendship in the correctional environment may help prevent offenders from responding negatively or keep them from escalating conflict or being involved in violent situations (Leban et al., 2016; Rocheleau, 2014). Thus, friends may prevent stressful situations from emerging (Cullen, 1994).

The results of the stepwise regression analyses indicated that two of the nine predictor variables, Friends, and Hostility, accounted for 9.5% of the variance in the offenders Seeking Social Support. These variables made a statistically and practically significant contribution to the variance of Seeking Social Support. A positive correlation was found between Hostility and Seeking Social support, suggesting that when offenders have higher levels of hostility, they then tend to make more use of seeking social support as a coping strategy. Thus, offenders tend to exhibit more hostility when they use social support as a coping strategy. Offenders who are unable to cope within the correctional environment may develop feelings of hostility (Asberg & Renk, 2014). This study's findings contradict previous research, which shows that social support during incarceration may lessen the effects and feelings of hostility and predict a more positive attitude at the time of release (Cullen, 1994; Hochstetler et al., 2010). A negative correlation was found between Friends and Seeking social support, which suggests that offenders who perceived more social support from their friends were less inclined to seek social support as a coping strategy. This finding is corroborated by previous research, which found that friends are part of an offender's social support network and may provide security or

protection from victimisation (Leban et al., 2016; Liu & Chui, 2013). According to Krabill and Aday (2005), offenders often seek social support from other incarcerated offenders in order to cope with the physical isolation and separation of emotional ties with family and friends on the outside. Therefore, friendships in the correctional environment make it easier for offenders to cope with the stressful environment by providing a sense of love and belonging and may help prevent psychological deterioration (Abiama & Etowa, 2013; Leban et al., 2016; Ricciardeli, 2014; Shammi, 2020). A lack of friends in the correctional environment tends to increase the odds of poor social support (Dadi et al., 2019).

Lastly, the stepwise regression analysis results indicated that Age and Friends as a combination explained 3.7% of the variance in Avoidance. The results were statistically significant; however, they were not practically significant. Previous studies have found that elderly offenders use avoidance as a coping strategy to decrease their risk of being victimised by younger offenders (Dawes, 2009; Trotter & Baidawi, 2015; Wahidin, 2004). On the other hand, younger offenders tend to utilise aggression to cope within the correctional environment (Pretorius, 2019). Younger offenders are more likely to get involved in bullying, misconduct and intimidating other offenders in an attempt to fight for recognition and legitimacy inside the correctional environment (Camp et al., 2003; De Vigianni, 2007; Trulson, 2007). According to Gear and Ngubeni (2002), gestures of friendship in the correctional environment may be perceived as forms of trickery as offenders could use offers of ‘friendship’ to control and manipulate another offender. Trusting the wrong person can lead to victimisation or even death (Schaefer et al., 2017). In a study by Ricciardelli (2014), offenders found that if they kept to themselves and limited their social interaction with other offenders, they could remove themselves from problematic situations in the correctional environment. Thus, using avoidance as a coping strategy can be helpful within the correctional environment (Lazarus & Folkman, 1984; Leban et al., 2016). However, according to McCorkle (1992), offenders who utilize

avoidance as a coping strategy are often perceived as weak and vulnerable by aggressive offenders and may be robbed, exploited, or dominated more in the correctional environment.

5.6 Study Limitations

The first limitation of this study is the use of non-probability sampling, which produces a sample that is not representative of the population (Neuman, 2014). Thus, the results of this study cannot be generalised to other offender populations outside of Mangaung Correctional Centre.

The use of secondary data is another limitation of this study, as the data was collected to answer questions from the original research study and not necessarily answer this study's specific research questions (Johnston, 2017). Secondary data analysis also only considers research questions that can be answered by the available data (Vartanian, 2010). Therefore, this study could not consider variables that were not part of the data collected for the original study.

The use of self-report measures is another limitation, as participants were required to answer questions as accurately and honestly as possible. However, that tends to be problematic in the correctional environment, as the participants could have been inclined to provide socially desirable responses to portray themselves as better individuals than they were (Gonyea, 2005; Hare, 1991, 2011; Nezu et al., 2007; Rosenman et al., 2011; Seager, 2005).

Lastly, another limitation is that there could be other predictor variables that this study did not consider, like sentence length, religion, self-efficacy, gang affiliation, prison "marriages," and substance use, i.e., drugs and alcohol. These variables may have been able to provide statistically and practically significant results.

5.7 Future Recommendations

In light of the limitations described, further studies need to be conducted in order to get more insight into the different variables that may contribute to coping within correctional centres (Picken, 2012). Such research might lead to developing interventions that may assist offenders in coping better

with the challenges and obstacles they may encounter in the correctional environment. Research has also highlighted that an individual's coping abilities within the correctional centre may have implications upon an offender's reintegration back into the community and subsequent risk of reoffending (Drago et al., 2011; Hochstetler, 2010). Therefore, coping inside correctional centres requires further exploration (Hampton, 2012).

As a recommendation, future research should also be conducted using an instrument that measures emotion-focused coping amongst the offender population to validate or debunk previous research on emotion-focused coping.

The majority of the variables in this research study did not deliver practically significant results due to small effect sizes. Therefore, the results have limited practical importance. Thus, it is further recommended that various variables be applied to future studies as predictors of coping and determine if they are practically and statistically significant. Lastly, it is recommended to examine coping styles amongst both female and male offenders to compare the differences in coping styles between the genders.

5.8 Research Contribution

Given the potential consequences of maladaptive coping amongst male offenders (Blevins et al., 2010; Matshaba, 2007; Mefoh et al., 2014; Picken, 2012), it is clear that furthering our understanding of the variables that could be used to predict coping within the correctional environment is beneficial. This study contributes to a better knowledge of coping in correctional centres and a better understanding of perceived social support, aggression, age and repeat offending as predictors of coping amongst incarcerated maximum-security male offenders. In this study, the predictor variables of coping, Friends (MSPSS) and Hostility (BPAQ), proved to be statistically and practically significant. These findings showed that friends might be essential in reducing hostility levels in

incarcerated offenders. Thus, this study's findings can inform further research on coping and the role of friends during incarceration, along with interventions, rehabilitation programmes, and workshops aimed at improving the coping of offenders.

5.9 Conclusion

This chapter aimed to discuss the results of this research study. The measuring instruments were discussed, and Cronbach and Omega alpha coefficients for the CSI, BPAQ and MSPSS were reported. A statistically and practically significant negative correlation was noted between Seeking Social Support (CSI subscale) and Friends (MSPSS subscale). This finding implies that when offenders perceive their social support from friends to be satisfactory they tend to use social support less as a coping strategy. The hierarchical regression analyses revealed that the independent predictor variables (BPAQ subscales, MSPSS subscales, Age and Repeat offending) statistically significantly predicted all aspects of the CSI (Problem-solving, Seeking Social Support and Avoidance). However, the contribution to the variance of each of the three criterion variables delivered no practically significant findings. The results of the stepwise regression analyses indicated that two of the nine predictor variables, Friends and Hostility, made a statistically and practically significant contribution to the variance of Seeking Social Support. A positive correlation was found between hostility and seeking social support. This finding implies that offenders tend to exhibit more hostility when they use social support as a coping strategy. A negative correlation was found between friends and seeking social support. This finding implies that offenders who perceived more social support from their friends were less inclined to seek social support as a coping strategy

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APPENDIX A:

GENERAL HUMAN RESOURCES ETHICS COMMITTEE: APPROVAL LETTER

UNIVERSITY OF THE FREE STATE
UNIVERSITEIT VAN DIE VRYSTAAT
YUNIVESITHI YA FREISTATA
UFS UV

GENERAL/HUMAN RESEARCH ETHICS COMMITTEE (GHREC)

29-Nov-2021

Dear Ms Snethemba Gwambe

Application Approved

Research Project Title:
Perceived social support, aggression, age and repeat offending as predictors of coping amongst male maximum-security offenders.

Ethical Clearance number:
UFS-HSD2021/1770/21

We are pleased to inform you that your application for ethical clearance has been approved. Your ethical clearance is valid for twelve (12) months from the date of issue. We request that any changes that may take place during the course of your study/research project be submitted to the ethics office to ensure ethical transparency. furthermore, you are requested to submit the final report of your study/research project to the ethics office. Should you require more time to complete this research, please apply for an extension. Thank you for submitting your proposal for ethical clearance; we wish you the best of luck and success with your research.

Yours sincerely

Dr Adri Du Plessis
Chairperson: General/Human Research Ethics Committee

Dr Adri du Plessis
Digitally signed by Dr Adri du Plessis
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APPENDIX B:

INFORMED CONSENT

RESEARCH STUDY INFORMATION LEAFLET AND CONSENT FORM

DATE

1 February 2018- 1 September 2018

TITLE OF THE RESEARCH PROJECT

Predictors of prison adjustment amongst male incarcerated offenders.

PRINCIPLE INVESTIGATOR/ RESEARCHER NAME/ STUDENT NUMBER AND CONTACT DETAILS

Codi Rogers 2012037202
073 615 8798
RogersC@ufs.ac.za

FACULTY AND DEPARTMENT

Faculty of the Humanities Department of
Psychology

STUDY LEADERS NAME AND CONTACT NUMBER

Dr. Jacques Jordaan 051 401 2890
JordaanJ1@ufs.ac.za

RESEARCH ETHICS COMMITTEE SECRETARY CONTACT DETAILS

Charné Vercueil 051 401
7083
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WHAT IS RESEARCH?

Research is undertaken in order to find new knowledge about the ways things andpeople work. We use research projects to help us find out more about people andthe factors that affect their lives and experiences. This research is being conductedfor the sole purpose of understanding adjustment within a correctional centre. Asyou are incarcerated in a correctional centre, you have been randomly selected and subsequently invited to voluntarily participate in a study that aims to understand adjustment to a correctional environment. The researcher is interested in the factors that make incarcerated offenders adjust either better or worse to the correctional centre. The factors include the offender's relatively unique set of coping strategies, aggression levels and perceived social support as well as the offender's age, type of offence and sentence length. Subject to the findings of this study, the data gathered from this research will ultimately and expectantly be used as part of a different study to develop and evaluate a programme for incarcerated offenders that will assist them with adjustment to thecorrectional environment. You have been selected and consequently invited to take part in this study because you meet certain criteria. This includes having an education level above grade 6 and being able to read, write and understand English. The researcher has identified you as a potential participant with the assistance of correctional officials employed at this correctional centre. A list of possible participants was compiled and the researcher solely and completely randomly selected every 6th participant to take part in this study. As a result of thisrandom selecting process you were identified as a potential participant in this study.

WHAT IS THE AIM/ PURPOSE OF THE STUDY?

The aim of this research is to determine which variables are the best predictors of correctional adjustment amongst male incarcerated offenders in a South African correctional center.. The subsequent purpose of the research is to determine how male offenders with different coping strategies, aggression levels, perceived socialsupport, ages, type of offences and sentence lengths adjust to incarceration. Usingsix questionnaires, the researcher will examine certain key variables that can be used to predict correctional adjustment. In doing so, the findings may possibly identify particular types of offenders that are at an increased risk of maladjustment whilst incarcerated. If this is the case, these findings will expectantly be used to inform future research that will aim to develop and evaluate a correctional adjustment programme for offenders in order to assist offenders with developing vital skills that will aid the adjustment process.

WHO IS DOING THE RESEARCH?

The principal investigator is a Research Master's Psychology Student at the University of the Free State. She is conducting this research as part of her ResearchMaster's Psychology degree. She is passionate about understanding populations of incarcerated offenders in the South African context. She hopes to one day develop programmes that will assist offenders with adjustment to the correctionalenvironment.

HAS THE STUDY RECEIVED ETHICAL APPROVAL?

This study has received ethical approval from the Research Ethics Committee of the University of the Free State. A coping of the approval letter can be obtained from the researcher.

Approval number: AWAITING

WHY ARE YOU INVITED TO TAKE PART IN THIS RESEARCH PROJECT?

The purpose of this research is to understand correctional adjustment amongst male incarcerated offenders. As you are detained in this correctional center and have met the relevant criteria that we would like to study, we are interested in learning more about you as an individual and your experiences with incarceration.400 participants have been asked to take part in this study and you are one of them. A correctional official employed at this correctional centre assisted the researcher with compiling a list of individuals incarcerated at this correctional centre who meet the relevant research criteria. This includes having an educationlevel above grade 6 and being able to read, write and understand English. From this list, the researcher then solely and completely randomly selected every 6th individual who was then invited to take part in this study. As a result of this random selection process you were identified as a potential participant in this study.

WHAT IS THE NATURE OF PARTICIPATION IN THIS STUDY?

If you voluntarily choose to participate in this study and have signed the written consent form at the end of this information leaflet, you will be required to complete six separate questionnaires which will be given to you in book format. Take your time reading through these questionnaires and understanding the questions as far as possible. Be as honest as you can when answering the questions. The questionnaires do contain personal and sensitive questions thus itis important that you strongly consider whether or not you would like to take partin this study. The first questionnaire that you will be asked to answer is a demographic questionnaire that includes individual-related questions such as your age, ethnicity and marital status as well as questions relating to your prior criminal history and your current sentence that you are in this correctional centrefor. Some of these questions may be sensitive and as a result you are encouraged to take your time when answering these questions. As we are interested in understanding your adjustment to the correctional environment, the next questionnaire you will be asked to complete is The Prison Adjustment

Questionnaire (PAQ). Answer this as honestly as possible. This information will help us to understand how you are experiencing the correctional environment. There will also be a coping questionnaire, namely the Coping Strategy Indicator (CSI) which will be used to identify the method of coping that you usually use in the correctional environment. For example, do you avoid problems or do you dealwith them head-on. The next questionnaire will help us to understand aggression levels and the role they play in adjusting to incarceration. You will then be asked to complete the Multidimensional Scale of Perceived Social Support (MSPSS)which will give the researcher an indication of the perceived social support you feel you receive from friends, family members as well as a significant other. Lastly,the Depression, Anxiety and Stress Scale (DASS) will be used to measure your depression, stress and anxiety levels to see whether your adjustment to the correctional environment impacts upon how you feel. It is very important that you understand that at no time will you be asked to identify yourself by giving your name/ nickname/ correctional number or anything else that might identify you. Once your questionnaire has been handed to the researcher, your answers will be completely anonymous and there will be no way for the researcher to connect anyresponses that you provide to you. Depending on the instructions provided by theDepartment of Correctional Services as well as the instructions provided by this correctional centre, the completion of the questionnaires will take place in one oftwo possible ways. Firstly, you may be asked to complete the questionnaires overa one-week period (7 days) at any time and in your own time. Thus you can take the questionnaires with you to your cell and complete all six questionnaires whenever you would like before the end of the 7 days. In this case, the researchercannot guarantee that the information that you provide will be confidential as your responses may at some point be seen by other offenders and/or correctionalstaff. Once you have completed the questionnaires, you can hand your answer book to your supervising officer who will personally give it to the researcher. Once your completed answer book is handed to the researcher, your responses will be completely anonymous and confidential as she will be the only person handling the data and will have no way to identify you by your answers. The second methodof questionnaire-completion will take place over a 5 day or a period of oneworking week. However, in this case you will be asked to complete all six questionnaires in a specific location for a specific amount of time. As an example, between 8am and 4pm, with a lunch time break in between, you will complete allsix questionnaires. There will be five separate sessions from Monday- Friday and you will be informed ahead of time which session you will be completing the questionnaires in. Please be advised that this is subject to change and all arrangements will be communicated to you thoroughly and in a timeous manner once DCS and this correctional centre has provided the researcher with instructions for the best possible way to collect data. Please note that DCS may also

suggest another method of questionnaire completion that is not included in this leaflet based on certain correctional procedures and security measures. Please take note of the dates below. The scheduled dates for the research to take place is from the 1st of February 2018 up until the 1st of September 2018. The extent of your involvement however will be a maximum of one week regardless ofwhich method of questionnaire completion will take place. Take your time when answering the questionnaires as much as you can. Each questionnaire should take you around half an hour to an hour to complete but there is no time limit that youwill need to abide to for each questionnaire. The six questionnaires do contain personal and sensitive questions, thus it is extremely important that you stronglyconsider whether you would like to take part in this study. If you do decide to participate, you will be asked to provide personal information about yourself and your life and criminal history that may be seen by other offenders and correctional staff whilst in your possession. It is also important to note that some questions may trigger an emotional response on your part and may cause you personal and/or cultural embarrassment in some circumstances. In order to ensure that your rights are protected during the course of this research, psychological and social work services have been arranged on your behalf. If you experience any personal, psychological, social and/ or emotional distress as a result of participating in this study, the psychologist (insert name) and/or the social worker (insert name) has been arranged to assist you. These individuals will assistyou in working through this experience if the need arises. You can contact these individuals by notifying your supervising officer and the service will then be arranged on your behalf. Please note that the choice to participate or not participate in this research will in no way influence your parole outcomes, sentencing, benefits or privileges and there is no reward, money, remuneration orincentive for participation in this research. If you choose to participate in this study you do so completely voluntarily and with the promise of no benefits, gifts, privileges or rewards.

CAN THE PARTICIPANT WITHDRAW FROM THE STUDY?

Participation in this research is completely voluntary and you do not have to participate in this study if you do not want to. Once you have read the informationleaflet and you have decided not to participate in the study you can indicate this to your supervising officer who will then notify the researcher. There will be no loss of benefits or privileges if you do not want to take part in this study. You do not have to provide a reason for choosing not to take part in this study. If you do choose to participate in this study, you are free to withdraw or stop participating in the study at any time without giving a reason. You do not have to complete the questionnaires if you would prefer not to. If you do take part, you will be given thisinformation sheet to keep with you and you will be asked to sign the written consent form at the end of this information leaflet showing that you agree to

participate in the study. While you can withdraw at any time through the course of the research or stop answering the questionnaires at any point, once you have completed and handed back the six questionnaires to the researcher, you will not be able to withdraw from the study.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

There are limited or no potential benefits for you as the participant to taking partin this study. You will not receive any money, rewards or benefits and privileges for taking part in this study. Taking part in this study while in no way positively influence your parole outcomes or any other privileges or benefits while incarcerated. While there are limited potential benefits for the participant itself totaking part in this study, the benefits however, for the larger population of incarcerated offenders and for South African correctional research is vast. Firstly,the findings of this study will contribute to the larger body of South African research which aims to understand incarcerated offenders in the South African context. Secondly, this study will help to determine which variables are the best predictors of correctional adjustment and can thus be used to inform future research and decide whether extra resources are needed to assist offenders with adjustment to incarceration. Lastly, this study can assist with the future development and implementation of rehabilitation programmes to support the treatment and eventual reintegration of offenders back into society.

WHAT IS THE ANTICIPATED INCONVENIENCE OF TAKING PART IN THISSTUDY?

There are noticeable risks and inconveniences to taking part in this study. If you choose to participate in this research you will have to allocate a significant periodof time to completing the questionnaires. This may interfere with other programmes, workshops, schooling or any other responsibilities or activities thatyou are currently involved in. Your full participation in this study however, will only be for a maximum period of one week or 7 days. It is possible that you may be questioned by other individuals who are not taking part in the study as to whyyou are participating in the research. Thus again, it is important that you stronglyconsider whether or not you would like to take part in this study given these potential risks and inconveniences. If you do choose to participate in this study, itis important for you to completely understand what the research is about and whyyou are involved in it. You have been chosen at random to take part in the study and that is why you were asked to participate. You are not receiving any special benefits or privileges for participating in this research and your participation is for the purpose of broadening the understanding of correctional adjustment.

WILL WHAT I SAY BE KEPT CONFIDENTIAL?

The researcher will ensure as far as possible that your rights to confidentiality are maintained and upheld. This however will be a challenge if and when the questionnaires are in your possession. If and when the questionnaires are in your possession, the researcher can in no way guarantee that your answers will be kept confidential as other offenders and/or correctional staff may see your responses at some point. Once your answer book has been collected from the correctional centre by the researcher, all the information that you have provided will be strictly confidential and will only ever be seen by the researcher. At no point in the study will you be asked to identify yourself either by name, nickname or correctional number and as a result anonymity will be assured. The researcher will have no way of connecting you to the answers that you provide. After you have handed back your answer book to the researcher, you will be given a random research number which you will be identified by and referred to throughout the research process. At this point, the researcher will be the only person dealing with your answers and thus confidentiality will be further ensured. It is important to note however, that the research, containing answers provided by you, will be reviewed by the researchers study leader(s) and in some cases a research ethics committee but will in no way be connected to you. The anonymous data that will be collected from you will be put together in a research thesis and eventually into two articles that may be published or presented at conferences but you will never be identifiable in any such circumstance. The researcher will ensure that your rights to privacy, confidentiality and anonymity are maintained as far as possible once she has collected your answer book.

HOW WILL THE INFORMATION BE STORED AND ULTIMATELY DESTROYED?

Hard copies of all of your answers that have been captured in book format will be stored in a locked cupboard in the office of the researcher for a duration of five years after the completion of the research endeavor. This will be done for future research or academic purposes. Any and all electronic data will be stored on the personal hard drive of the researcher in a password protected computer. Any future use of the stored data will be subject to further Research Ethics Review and approval if applicable. After a duration of five years or after future research endeavors have been completed and a period of five years has elapsed, all data will be destroyed in a non-hazardous manner at a recycling deposit. There will be no level of inconvenience or discomfort to you in this regard.

WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THISSTUDY?

There will be no payment, remuneration, benefits, privileges, gifts or incentives to participating in this study. If you choose to participate, you do so voluntarily and with the promise of no financial or other expense or reward.

HOW WILL THE PARTICIPANT BE INFORMED OF THE FINDINGS/ RESULTS OF THE STUDY?

As it may be challenging for you to contact the researcher directly to receive feedback on the outcome of the study, once the research has been completed, several feedback leaflets will be circulated to participants via your respective supervising officers. This leaflet will contain a summary of the findings of the study. You are welcome to request this at your supervising officer from the start of January 2019. A correctional official can then contact the researcher and/or thestudy leader to find out when the feedback leaflets will be available to you. Your supervising officer can then communicate when this will take place to you. Furthermore, if at some point you can contact the researcher directly and would like to be informed of the research findings, please contact the principal investigator, Codi Rogers at 073 615 8798 or via email at RogersC@ufs.ac.za. Thefindings will be accessible for a maximum duration of five years from the date of completion. If there are any queries or questions related to the study please contact the principal investigator on the contact details provided above.Alternatively, if you require any further information or have concerns about the way in which the research has been conducted, you are welcome to contact Dr. Jacques Jordaan on 051 401 2890 or at JordaanJ1@ufs.ac.za. You are also welcometo contact the secretary at the Research Ethics Committee, Charné Vercueil with questions related to the research at 051 401 7083 or at VercueilCC@ufs.ac.za.

Thank you for taking the time to read this information sheet and for participating in the study.

Please see the consent form below.
If you would like to participate in this study, read the consent form thoroughlyand then sign in the designated places.

CONSENT TO PARTICIPATE IN THIS STUDY

I, _____ (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenienceof participation.

I have read (or had explained to me) and understood the study as explained in the information sheet. I have had sufficient opportunity to ask questions and am prepared to participate in the study. I understand that my participation is voluntary and that I am free to withdraw at any time without penalty. I am awarethat the findings of this study will be anonymously processed into a research report, journal publications and/ or conference proceedings.

I agree to the recording of my responses via the six questionnaires as detailed inthe information leaflet.

Full Name of Participant: _____

Signature of Participant:_____Date: _____

Full Name of Researcher: _____

Signature of Researcher:_____Date: _____

APPENDIX C:

COPING STRATEGY INDICATOR

Coping

Please rate each statement with how it reflects to you dealing with stressful events, using the scale below to make your choice.

1 **Not at all**
2 **A little**
3 **A lot**

No	Statement	Not at all	A little	A lot
01.	Described your feelings to a friend	**1**	**2**	**3**
02.	Rearranged things so your problem could be solved	**1**	**2**	**3**
03.	Thought of many ideas before deciding what to do	**1**	**2**	**3**
04.	Tried to distract yourself from the problem	**1**	**2**	**3**
05.	Accepted sympathy and understanding from someone	**1**	**2**	**3**
06.	Did all you could to keep others from seeing how bad things really were	**1**	**2**	**3**
07.	Talked to people about the situation because talking about it made you feel better	**1**	**2**	**3**
08.	Set some goals for yourself to deal with the situation	**1**	**2**	**3**
09.	Weighed up your options carefully	**1**	**2**	**3**
10.	Daydreamed about better times	**1**	**2**	**3**
11.	Tried different ways to solve the problem until you found one that worked	**1**	**2**	**3**
12.	Talked about fears and worries to a relative or friend	**1**	**2**	**3**
13.	Spent more time than usual alone	**1**	**2**	**3**
14.	Told people about the situation because talking about it helped you come up with solutions	**1**	**2**	**3**
15.	Thought about what needs to be done to straighten things up	**1**	**2**	**3**
16.	Turned your full attention to solving the problem	**1**	**2**	**3**
17.	Formed a plan in your mind	**1**	**2**	**3**
18.	Watched television more than usual	**1**	**2**	**3**

19.	Went to someone friend or professional to help you feel better	**1**	**2**	**3**
20.	Stood firm and fought for what you wanted in the situation	**1**	**2**	**3**
21.	Avoided being with people in general	**1**	**2**	**3**
22.	Buried yourself in a hobby or sports activity to avoid the problem	**1**	**2**	**3**
23.	Went to a friend to help you feel better about the problem	**1**	**2**	**3**
24.	Went to a friend for advice about how to change the situation	**1**	**2**	**3**
25.	Accepted sympathy and understanding from friends who had the same problem	**1**	**2**	**3**
26.	Slept more than usual	**1**	**2**	**3**
27	Fantasized about how things could have been different	**1**	**2**	**3**
28	Identified with characters in movies or novels	**1**	**2**	**3**
29	Tried to solve the problem	**1**	**2**	**3**
30	Wished that people would just leave you alone	**1**	**2**	**3**
31	Accepted help from a friend or relative	**1**	**2**	**3**
32	Sought reassurance from those who know you best	**1**	**2**	**3**
33	Tried to carefully plan a course of action rather than acting on impulse	**1**	**2**	**3**

APPENDIX D:

BUSS AND PERRY AGGRESSION QUESTIONNAIRE

Aggression

By using the 5-point scale on the right, indicate how uncharacteristic or characteristic each of the following statements is in describing you.

1 = extremely uncharacteristic of me

2 = somewhat uncharacteristic of me

3 = neither uncharacteristic or characteristic of me

4 = somewhat characteristic of me

5 = extremely characteristic of me

1	Once in a while I can't control the urge to strike another person.	1	2	3	4	5
2	Given enough provocation, I may hit another person	1	2	3	4	5
3	If somebody hits me, I hit back	1	2	3	4	5
4	I get into fights a little more than the average person.	1	2	3	4	5
5	If I have to resort to violence to protect my rights, I will.	1	2	3	4	5
6	There are people who pushed me so far that we came to blows.	1	2	3	4	5
7	I can think of no good reason for ever hitting a person**.***	1	2	3	4	5
8	I have threatened people I know.	1	2	3	4	5
9	I have become so mad that I have broken things	1	2	3	4	5
10	I tell my friends openly when I disagree with them.	1	2	3	4	5
11	I often find myself disagreeing with people	1	2	3	4	5
12	When people annoy me, I may tell them what I think of them.	1	2	3	4	5
13	I can't help getting into arguments when people disagree with me.	1	2	3	4	5
14	My friends say that I'm somewhat argumentative	1	2	3	4	5
15	I flare up quickly but get over it quickly.	1	2	3	4	5
16	When frustrated, I let my irritation show.	1	2	3	4	5
17	I sometimes feel like a powder keg ready to explode.	1	2	3	4	5
18	I am an even-tempered person.****	1	2	3	4	5
19	Some of my friends think I'm a hothead.	1	2	3	4	5
20	Sometimes I fly off the handle for no good reason.	1	2	3	4	5

21	I have trouble controlling my temper.	1	2	3	4	5
22	I am sometimes eaten up with jealousy.	1	2	3	4	5
23	At times I feel I have gotten a raw deal out of life.	1	2	3	4	5
24	Other people always seem to get the breaks.	1	2	3	4	5
25	I wonder why sometimes I feel so bitter about things.	1	2	3	4	5
26	I know that "friends" talk about me behind my back.	1	2	3	4	5
27	I am suspicious of overly friendly strangers.	1	2	3	4	5
28	I sometimes feel that people are laughing at me behind my back.	1	2	3	4	5
29	When people are especially nice, I wonder what they want.	1	2	3	4	5

APPENDIX E:

MULTIDIMENSIONAL SCALE OF PERCEIVED SOCIAL SUPPORT

MULTIDIMENSIONAL SCALE OF PERCEIVED SOCIAL SUPPORT

We are interested in how you feel about the following statements. Please read each statement carefully and select **ONLY ONE** answer that best describes **how much you agree** with the statement.

4.1. There is a special person who is around when I am in need.

□ Very Strongly Disagree □ Strongly Disagree □ Mildly Agree
□ Neutral □ Mildly Agree □ Strongly Agree
□ Very Strongly Agree

4.2. There is a special person with whom I can share joys and sorrows.

□ Very Strongly Disagree □ Strongly Disagree □ Mildly Agree
□ Neutral □ Mildly Agree □ Strongly Agree
□ Very Strongly Agree

4.3. My family really tries to help me.

□ Very Strongly Disagree □ Strongly Disagree □ Mildly Agree
□ Neutral □ Mildly Agree □ Strongly Agree
□ Very Strongly Agree

4.4. I get the emotional help & support I need from my family.

□ Very Strongly Disagree □ Strongly Disagree □ Mildly Agree
□ Neutral □ Mildly Agree □ Strongly Agree
□ Very Strongly Agree

4.5. I have a special person who is a real source of comfort to me.

□ Very Strongly Disagree □ Strongly Disagree □ Mildly Agree
□ Neutral □ Mildly Agree □ Strongly Agree
□ Very Strongly Agree

4.6. My friends really try to help me.

□ Very Strongly Disagree □ Strongly Disagree □ Mildly Agree
□ Neutral □ Mildly Agree □ Strongly Agree
□ Very Strongly Agree

4.7. I can count on my friends when things go wrong.

□ Very Strongly Disagree □ Strongly Disagree □ Mildly Agree
□ Neutral □ Mildly Agree □ Strongly Agree
□ Very Strongly Agree

4.8. I can talk about my problems with my family.

□ Very Strongly Disagree □ Strongly Disagree □ Mildly Agree
□ Neutral □ Mildly Agree □ Strongly Agree
□ Very Strongly Agree

4.9. I have friends with whom I can share my joys and sorrows.

□ Very Strongly Disagree □ Strongly Disagree □ Mildly Agree
□ Neutral □ Mildly Agree □ Strongly Agree
□ Very Strongly Agree

4.10. There is a special person in my life who cares about my feelings.

□ Very Strongly Disagree □ Strongly Disagree □ Mildly Agree
□ Neutral □ Mildly Agree □ Strongly Agree
□ Very Strongly Agree

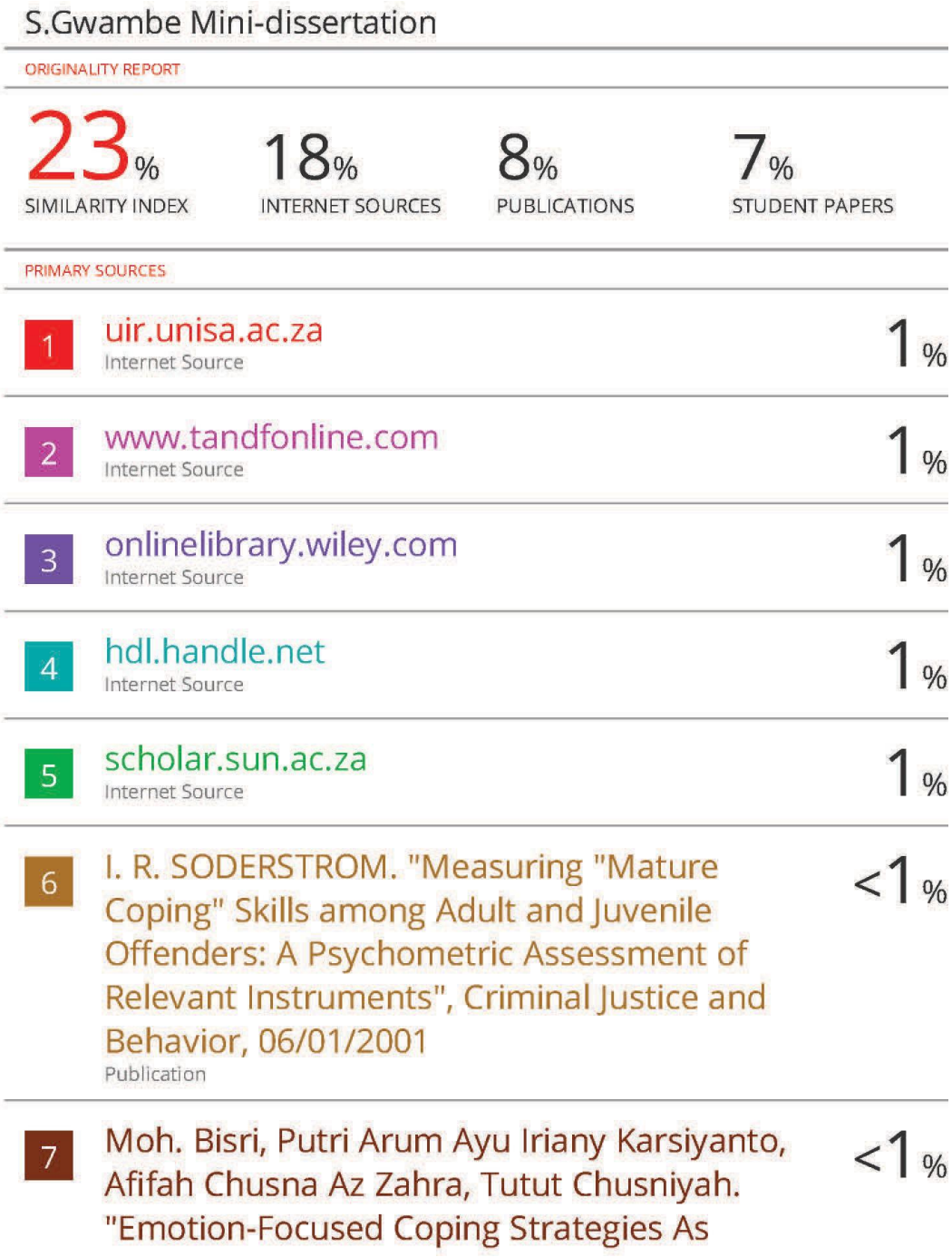
4.11. My family is willing to help me make decisions.

□ Very Strongly Disagree □ Strongly Disagree □ Mildly Agree
□ Neutral □ Mildly Agree □ Strongly Agree
□ Very Strongly Agree

4.12. I can talk about my problems with my friends.

□ Very Strongly Disagree □ Strongly Disagree □ Mildly Agree
□ Neutral □ Mildly Agree □ Strongly Agree
□ Very Strongly Agree

APPENDIX F:
TURNITIN REPORT



S.Gwambe Mini-dissertation

ORIGINALITY REPORT

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