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**Acute Assessment of Aggression:
Using the Dynamic Appraisal of Situational Aggression (DASA) with
New Zealand Offenders**

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Abstract

Institutional violence in prisons and other corrections settings is a hazard to the security and wellbeing of staff and other offenders. However, the ability to systematically assess for acute, day-to-day aggression in these settings has not been widely developed. Staff assessing aggression in institutional settings ought to use risk assessment measures to aid professional judgement, and this research suggests a need for dynamic, acute risk assessment for aggression amongst New Zealand offenders. The Dynamic Appraisal of Situational Aggression (DASA; Ogloff & Daffern, 2006) was created originally for use amongst psychiatric inpatients. This research aimed to evaluate the use of the DASA for custodial staff in acute risk assessment and offender treatment in different prison units for its potential to fill this niche.

Predictive accuracy of the measure in relation to aggressive behaviour was examined, and custodial staff were surveyed on the ease of administration, their perception of the measure's effectiveness with their unit, and whether its addition improved offender management. Staff consisted of prison officers and a principle correctional officer in each of the three prison-based units, and custodial management staff at Tai Aroha. These staff nominated offenders ($N = 19$) on agreement of them being of highest management concern.

Results found the DASA to demonstrate moderate predictive validity, with survival analyses showing high scores on the DASA were associated with highly aggressive offenders. Most staff identified the DASA as assisting in identifying those offenders that were a high risk for aggression. Implications for practice in corrections settings are discussed.

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Table of Contents

Abstract.....	ii
Acknowledgements.....	iii
Table of Contents.....	iv
List of Figures.....	vii
List of Tables.....	viii
Chapter One: Literature Review.....	1
Aggression.....	2
Assessment of Aggression.....	20
Intervention.....	30
Chapter Two: Introduction to This Study.....	35
Pilot study.....	37
The Present Study.....	38
Chapter Three: Method.....	40
Setting.....	40
Participants.....	41
Research Design.....	43
Measures.....	47
Procedures.....	52

Analytic approach	54
Data analysis	56
Ethical considerations	59
Chapter Four: Results.....	69
Data Screening	69
DASA ratings and aggressive incidents	75
Trajectories of aggression	77
Correlations.....	77
Results of survival analyses.....	79
Testing Hypothesis One	81
Feedback from Corrections Officers	83
Testing Hypothesis Two	92
Summary	97
Chapter Five: Discussion	99
Hypothesis Testing	99
How this study relates to the literature.....	104
Practical Implications	112
Study Limitations.....	114
Future Directions for Research	116
Final Conclusions.....	119

References.....	121
Appendices.....	133
Appendix A. Interview Questions.....	133
Appendix B. Survey Questions	135
Appendix C. DASA Modified for Prison Use	146
Appendix D. Information Letter	148
Appendix E. Consent Form	150
Appendix F. Results Tables and Figures	152
Appendix G. Correlations	156
Appendix H. Staff Opinions	157

List of Figures

Figure 1: Boxplot assessing for outliers	75
Figure 2: Survival to first aggressive act based on RoC*RoI risk categorisation...	80
Figure 3: Survival to first aggressive act based on first risk rating on DASA.....	80
Figure 4: Survival functions for type of aggression on first incident	81
Figure 5: Results to staff survey for question on ease of use of the DASA	84
Figure 6: Results to staff survey for question on whether staff treated offenders with elevations differently	87

List of Tables

Table 1: Comparing the four different locations	41
Table 2: DASA categories of aggression	48
Table 3: DASA items and item descriptions	49
Table 4: Prisoner demographics by unit compared to the national average	72
Table 5: Sample normality	74
Table 6 Total number of elevations on DASA items	76
Table 7 Total number of aggressive incidents by aggression type	76
Table 8: Pearson correlations for each DASA item and aggressive days	78

Chapter One: Literature Review

Many who live with violence day in and day out assume that it is an intrinsic part of the human condition. But this is not so. Violence can be prevented. Violent cultures can be turned around. In my own country and around the world, we have shining examples of how violence has been countered. Governments, communities and individuals can make a difference (Mandela, 2002).

Within prison settings, occurrences of violence and aggression are persistent concerns for all correctional systems (Cooke, Wozniak, & Johnstone, 2008). Psychologists and researchers must establish an understanding of violence and aggression, in order to educate those working in fields encountering such behaviour, so as to begin the path towards violence prevention. Equally, it is crucial to not see violence as inevitable amongst this population, so that offenders are not all treated like ticking time-bombs. If that were the case, violence rehabilitation programs would be fruitless.

This chapter reviews the literature relevant to the study and measurement of dynamic aggression among New Zealand offenders. It begins with an exploration of the issues related to studying and monitoring aggression in institutional settings. The Dynamic Appraisal of Situational Aggression (DASA) will be discussed with reference to its potential use with New Zealand offenders.

Finally, practical uses of institutional violence and aggression assessment will be addressed in a discussion on intervention and behaviour change.

Aggression

Aggression and violence have a long history in institutional settings such as prisons and psychiatric hospitals, and have been identified as a pressing issue (Welsh, Bader, & Evans, 2013). Aggression a growing concern in not only institutional settings, but in society as a whole, with homicide rates increasing worldwide since World War II (Anderson & Bushman, 2002). However, it is within institutions that psychologists, behavioural scientists, researchers, criminologists, and sociologists have the opportunity to examine, research, and attempt to predict aggression, with the goal of greater understanding and the development of effective prevention and interventions for aggression. To assist in this development there must be an understanding of the clinical characteristics of aggression, which are likely to be similar across settings. There must also be an appreciation of the situational patterns of aggression, which may reveal the impact of environmental characteristics (Daffern, Mayer, & Martin, 2003).

This section begins with (1) a definition of aggression, including historical theories and understandings of aggression in psychology such as the frustration-aggression hypothesis (Miller, Sears, Mowrer, Doob, & Dollard, 1941) and Bandura's social learning theory (Bandura, 1976); (2) a general aggression model (Anderson & Bushman, 2002) is presented; (3) types of aggression are described and situational, or dynamic, aggression is reviewed. The section finishes with (4)

a discussion on institutional aggression and violence, and how this can be measured.

Defining aggression

It is crucial that distinct understandings of aggression are available to those working in correctional and other institutional settings, so they are able to clearly assess and manage aggression. Although there are contentions around definitions of aggression, most articles on the subject offer at least a general definition (e.g. Anderson & Bushman, 2002; Bandura, 1976; Siegel, 2005). Aggression is defined by Bandura (1976) as “behaviour that results in personal harm and in destruction of property” (p. 203), while Anderson and Bushman (2002) specify that the harm must be intentional. According to social learning theory, aggressive behaviour is a means of avoiding punishment or gaining rewards, similar to any other behaviour (Bandura, 1973). Some researchers distinguish between aggression and violence, saying violence has any extreme harm as its goal (i.e. all violence is aggression) (Anderson & Bushman, 2002), and that aggression is enacted behaviour with the immediate intention of causing harm, while violence is aggression with an objective of severe destruction (Robertson, Daffern, & Bucks, 2015). With these intricacies, how aggression is viewed is also complex, and these views can often be a matter of perspective (Bandura, 1976). Essentially, aggression is multifaceted, and there are differing views on specifically what aggression is. Additionally, how and why aggression occurs is viewed differently, and this is discussed in the next section on theories of aggression.

Theories of aggression

Early psychological theories suggested that humans are instinctively aggressive. For example, Freud (1923) understood aggression as representing the death instinct discharged outward, and destruction was seen to satisfy an instinctive inclination to aggress. Lorenz (1966) also saw aggression as a fighting instinct, but he viewed it from an ethological perspective in that fighting helps disperse populations and produces selective breeding. Some researchers have argued that there is no direct evidence showing such a reflexive aggressive instinct in humans (Tedeschi & Felson, 1994). Other evolutionary psychologists, such as Buss and Shackelford (1997) suggest that aggression is an adaptive solution to problems such as defending against attack, negotiating status and power hierarchies, and deterring mates from sexual infidelity.

The frustration-aggression hypothesis

In 1939 the idea of frustration and aggression was born (Andrews & Bonta, 2010; Miller, Sears, Mowrer, Doob, & Dollard, 1941). This perspective viewed aggression as a consequence of frustration. When aggression is observed, the organism is, or has been, confronted with frustration, and when an organism is frustrated, it is instigated to respond aggressively (Miller, Sears, Mowrer, Doob, & Dollard, 1941). Aggressive behaviour is self-reinforcing, reducing the instigation to aggress through catharsis (Andrews & Bonta, 2010; Tedeschi & Felson, 1994). According to Dollard et al. (1939), frustration is an external intrusion into goal-directed behaviour and expectations around reaching a goal. If one is stopped from reaching a goal, aggression-provoking frustration is likely

to arise (Berkowitz, 1993). Additionally, verbal threats and insults appear to provoke attacks more typically than physical pain (Bandura, 1976).

It is important to note that instigation to aggression is not the only instigation aroused by frustration, and an organism will only become aggressive if the instigation to aggress is the strongest provocation. People can learn non-aggressive ways of reacting to frustration, and experience can modify the chances of using aggressive reactions to frustration (Berkowitz, 1993). If alternative responses reduce frustrations, aggression will not occur, and is less likely to occur in similar future situations. If alternative responses do not reduce frustrations, aggression becomes increasingly more likely to occur (Miller, Sears, Mowrer, Doob, & Dollard, 1941). The likelihood of an aggressive response is influenced by whether the individual has developed other ways of reacting to frustrations; how long the frustration continues for; a greater expected satisfaction; being completely prevented from obtaining any satisfactions whatsoever; and having attempts to reach the goal thwarted repeatedly (Berkowitz, 1993). Additionally, if the frustration is viewed as intentional, aggression is more likely than if it is seen as accidental (Berkowitz, 1989).

Interestingly, Averill (1982) found that although frustration most frequently precipitated anger, a minority stated that they became aggressive even when they believed they had not been unfairly kept from attaining a goal. Thus the frustration-aggression hypothesis assists in an understanding of emotional aggression, but not instrumental aggression, which can be learned through observation and reinforcement (Bandura, 1976; Berkowitz, 1989; Berkowitz, 1993). This will be addressed in the section on social learning theory.

Berkowitz (1989) and Feshbach (1964) distinguished between reactive (or emotional) and instrumental aggression; arguing that aggression is not always primarily aimed at doing harm (Berkowitz, 1989). Emotional aggression is associated with heightened physiological, behavioural, and autonomic arousal (Siegel, 2005). It is impulsive, unplanned, with the ultimate goal to harm the target (Anderson & Bushman, 2002; Siegel, 2005), and follows the earlier notion of frustration leading to aggressive inclinations, but only to the degree that they arouse negative affect (Berkowitz, 1989). Instrumental aggression is premeditated and proactive; the response is planned (Siegel, 2005), and has the obtainment of some reward as its goal (Anderson & Bushman, 2002). A person becomes aggressive or violent if anger levels are high (emotional aggression) or if violent behaviour has been reinforced in the past (instrumental aggression) (Feshbach, 1964).

Instrumental and emotional aggression can be compared to predatory attack and affective defence behaviours in animals, respectively. Instrumental aggression and predatory attack are positively reinforcing, have a planned goal, and few autonomic signs. Emotional and affective defence behaviours are both reactions to stimuli that are perceived as threatening, are aimed at causing harm, and have marked autonomic signs (Siegel, 2005).

The frustration-aggression hypothesis is no longer a popular theory, especially since the development of more sophisticated learning principles (e.g. Berkowitz, 1989), and the integrative perspective of the general aggression model (Anderson & Bushman, 2002). Frustration simply does not adequately explain the multiplicity of aggression. However, it can be beneficial in applying to

a prison setting, where aversive stimulation is everywhere and emotional aggression can rise substantially due to changes in situational factors. A helpful view of the frustration-aggression relationship is as “a special case of a more general connection between aversive stimulation and aggressive inclinations” (Berkowitz, 1989, p. 60).

A social learning theory of aggression

Instrumental aggression can be learned through observation and reinforcement (Bandura, 1976; Berkowitz, 1993), and increases with social reinforcement, and in the absence of negative reinforcement, for example in individuals who do not experience guilt or other negative emotions after committing an aggressive act (Siegel, 2005).

Bandura (1971) revealed that human behaviour can be shaped by social learning, and that rewarding a modelled behaviour encouraged the imitation of it. He discovered that people acquire aggressive responses by observing and imitating the behaviour of other people (Anderson & Bushman, 2002; Bandura, 1976). Behaviour is learned (Tedeschi & Felson, 1994), and the learning history of the individual influences the likelihood of aggressive behaviour (Bandura, 1973). Thus, aggressive behaviour is elicited by its antecedents, and controlled by its consequences.

Social learning theory defines how an individual will respond to arousal and consequently whether aggression will be utilised (Berkowitz, 1989). Behaviour is influenced by stimulus control, reinforcement control, and cognitive control, and most actions are controlled by at least two of these influences at a time; any one of these explanations alone is not enough (Bandura, 1971).

Aggression is multifaceted, has multiple determinants, and can serve different purposes. In determining behaviour, these influences interact with each other rather than acting in isolation. There is a reciprocal relationship between the environment and behaviour, with each influencing the other (Bandura, 1971), and often aggressive people create an “aggressive environment” in which their hostile reactions to others’ interactions lead to further negative relations (Bandura, 1971).

When environmental inducements to fight are not present, avoidance and flight responses take priority over attack. Consequently, unless aggressive counterattacks have been learned and have been successful, humans are not likely to become aggressive (Bandura, 1976). Self-efficacy is important; the person carrying out the violence appraises their capability of performing the aggressive act. Reinforced performance influences the likelihood of aggressive behaviour, along with structural determinants such as genetic and hormonal factors, which set limits on the types of aggressive responses (Bandura, 1976).

Bandura, Underwood, and Fromson, (1975) discussed how aggressive behaviour is controlled, with self-reinforcement playing a major role. People regulate their own behaviour by self-created consequences, according to morals and personal standards. We do things that establish and uphold our self-worth and satisfaction, and refrain from doing things with self-devaluing consequences. It is often the presence of cognitive distortions, such as moral justifications that lessen the devaluing consequences of aggression for offenders. Importantly, reduced personal responsibility appears to heighten aggressiveness, through

increasing the likelihood that an individual will engage in dehumanizing towards others and self-absolving justifications (Bandura, Underwood, & Fromson, 1975).

However, through disengagement of self-detering consequences, normally moral, humane people can behave aggressively without self-criticism. Disengagement is achieved through cognitive distortions such as displacement of responsibility, dehumanization of victims, attribution of blame to victims, minimizing harm, and gradual desensitization (Bandura, 1973).

Recent literature supports social learning in enabling the development of aggressive behaviours. Garcia, Restubog, and Denson (2010) argue that exposure to aggressive cultures increases the likelihood that a person will respond aggressively to ill-treatment, a finding that remains strong regardless of whether a person believes in retaliation and the use of aggression.

Snethen and Van Puymbroeck (2008) also argue that aggression is socially motivated. Aggressive behaviour reflects how one learnt the behaviour (origin), situations that trigger aggression (instigators), and situations that reinforce aggression (maintenance). There are three major sources of aggressive behaviour in modern society: direct (familial), community (subcultural), and the media (symbolic modelling) (Bandura, 1976; Snethen & Van Puymbroeck, 2008). Direct influences are seen when family violence breeds violent styles of conduct. Families are embedded within the community, so it is no surprise that the community also influences aggressive behaviour. Where aggression is valued, such as in gang subcultures, higher rates of aggression are found. These subcultures breed aggression through assigning a high moral purpose to aggressive behaviour, for example, fighting for the honour of one's gang. The

media provides symbolic modelling, and violent television and video games mean that children have more opportunities to witness brutal acts of aggression. The literature on the effects of violent media on children is divided, but it is accepted among scientists that media violence does affect our behaviour (Christensen, 2013), and social learning plays a role in this effect.

Interestingly, the relatively recent increase in female aggression was attributed by Snethen and Van Puymbroeck (2008) to being related to an increase in the portrayal of women in media as violent. Of note was that aggressive girls were likely to watch more television per day than non-aggressive girls.

A final note on social learning theory is that “because aggression is not an inevitable or unchangeable aspect of man, but a product of aggression promoting conditions operating within a society, social learning theory holds a more optimistic view of people’s power to reduce their level of aggressiveness” (Bandura, 1976, p. 227).

Other theories and a General Aggression Model (GAM)

Other theories of aggression have been developed, and some, such as excitation transfer theory of emotion, the evolutionary perspective, and cultural theories are described here. However, none independently have matched the theoretical robustness of the frustration-aggression hypothesis or the social learning perspective. Rather, a combination of them, the general aggression model (GAM), succeeds in explaining the multifaceted nature of aggression.

Excitation transfer theory of emotion (Zillmann & Bryant, 1974) notes that physiological arousal dissipates slowly, which means anger may be extended

over longer periods of time than is observable. When angry, arousal is heightened, and Zillmann and Bryant (1974) found that if a person was provoked while physiologically aroused, there was significantly increased aggressiveness, compared to when there was not such enduring arousal. This is noteworthy in its application to aggression assessment, but does not explain instrumental aggression.

Cross and Campbell (2011) address the evolutionary perspective on gender differences in aggression, and note that males more frequent use of severe aggression is a phenomenon observed not only in all human cultures, but also in most other primate species. Social learning theory addresses the formation of stereotypes, without determining the ultimate causes of sex differences. The differential investment of parents across species demonstrate that 90% of mammal males do not contribute in the care of infants. This leads to differences in behaviour, with females less likely to engage in risky behaviour, such as aggression, that would put their offspring at risk (Cross & Campbell, 2011). However, as was noted earlier, aggression amongst females is increasing (Snethen & Van Puymbroeck, 2008), and this theory fails to explain this increase.

Cultural theories highlight group differences in values related to violent behaviour (Tedeschi & Felson, 1994). For example, among gang cultures, the value of courage and appearing tough often leads members to commit aggressive acts. Additionally, the influence of social supports on behaviours is demonstrated in that social exclusion often increases the likelihood of aggression (Robertson, Daffern, & Bucks, 2015). This theory fails when individuals act differently than would be expected from their group membership.

Cognitive associations influence preparedness to aggress (Robertson, Daffern, & Bucks, 2015). Cognitive neo-association theory posits that aversive events produce negative affect, stimulating physiological responses associated with fight and flight tendencies. Fight associations lead to anger, while flight associations lead to fear; either can precipitate aggression. Higher-order cognitive processes lead a person to suppress or enhance aggression associated with these feelings. This theory is particularly suited to explain hostile aggression through explanations of why aversive events increase likelihood of aggression (Anderson & Bushman, 2002).

The general aggression model (GAM) integrates these theories to form a model that is more efficient, and which better explains aggression based on multiple motives (Anderson & Bushman, 2002). GAM focuses on a single “episode,” but acknowledges this is only one cycle in an ongoing social interaction. The three main foci of the model are person and situation inputs; cognitive, affective, and arousal routes; and outcomes of underlying appraisal and decision-making processes. Person input factors include traits, beliefs, values, and scripts, comprising a person’s readiness to aggress. Situational factors include aggressive cues, frustration, discomfort, and incentives, which impact aggression by influencing cognition, affect, and arousal, all of which are highly interconnected. Outcomes are dependent on immediate automatic appraisal, and more effortful reappraisals (looking for an alternative view of the situation). Personality processes, such as exposure to violence, can assist in the creation of aggression scripts, influencing beliefs and attitudes, and can lead to aggression desensitization (Anderson & Bushman, 2002).

Research from Hosie, Gilbert, Simpson, and Daffern (2014) supports GAM as a predictor of aggression. They found strong normative beliefs and attitudes supporting aggression, frequent aggressive script rehearsal, and high trait anger were positively and significantly related to a life history of aggression (Hosie, Gilbert, Simpson, & Daffern, 2014). Knowledge structures, such as beliefs, attitudes, and scripts, help people understand their social environment and select appropriate actions, whether aggressive or not (Hosie, Gilbert, Simpson, & Daffern, 2014). However, the small sample size limited effect sizes, and the study used only male participants so it is unclear how generalisable the results are to female populations.

Types of aggression

The distinction between indirect and direct aggression, and verbal and physical aggression, sometimes creates problems regarding clarity of the definition of aggression (Green, 2001). The further categorisation as proactive and reactive aggression (Johnson, Nelson, Ghee, & Deardoff, 2013) follows the theoretical standpoint of instrumental versus emotional aggression (Berkowitz, 1993), and is valuable because it acknowledges there are different causes and courses of aggression.

Robertson, Daffern, and Bucks (2015) found anger to be heavily involved in aggression, with aggressive participants having a particular difficulty attending to their emotions. Men who abuse their partners report being less likely to attempt to reduce or control angry feelings than non-violent men; and youth offenders with more incidents of physical and verbal aggression report being more likely to express their anger behaviourally (Robertson, Daffern, & Bucks, 2015). These

findings distinguish between state aggression, which fluctuates over time, and trait aggression, which represents a stable personality dimension. Furthermore, trait aggressiveness includes a tendency to experience anger. When a person becomes angry, hostile thoughts and aggressive impulses are activated. This reduces information processing abilities and compromises the reappraisal part of the decision-making process, influencing the decision to aggress. If these impulses are acted upon, aggressive scripts are primed (Robertson, Daffern, & Bucks, 2015), making aggression more likely to occur again in the future.

Hosie, Gilbert, Simpson, and Daffern (2014) also found a relationship between higher trait anger and a life history of aggression, where high trait anger activates the rehearsal of aggressive scripts, sustains aggressive intention, and increases overall aggressive arousal. In addition to this, they found that low scores on the agreeableness factor of the five-factor model of personality traits were associated with aggression (Hosie, Gilbert, Simpson, & Daffern, 2014). Personality traits that tend to be associated with low agreeableness include antagonism, scepticism of others and competitiveness (Hosie, Gilbert, Simpson, & Daffern, 2014).

Three types of aggression are distinguished as different among incarcerated youth: direct physical, direct verbal, and indirect/social aggression (Johnson, Nelson, Ghee, & Deardoff, 2013). Direct physical aggression takes the form of hitting, kicking, or other forms of physical fighting, and research has found this to be more common among males, along with direct verbal aggression which involves words and insults to threaten or wound others (Robertson, Daffern, & Bucks, 2015). Contrastingly, indirect aggression involves measured,

indirect attempts to hurt through manipulative efforts to damage self-esteem, slander interpersonal relationships, or reject status within the social system. Females report being victimised more often than males with indirect or social aggression (Johnson, Nelson, Ghee, & Deardoff, 2013), and women also report using more indirect aggression than males (Robertson, Daffern, & Bucks, 2015). A possible reason for this gender difference can be the high value women place on interpersonal relationships, with a focus on intimacy and closeness, while men tend to base their relationships on structured games or activities (Johnson, Nelson, Ghee, & Deardoff, 2013).

Situational Aggression

Daffern, Mayer, and Martin (2003) argue there is a clear influence of situational and cultural contributors to aggression. They highlight the importance of situational factors, including characteristics of the incident, the aggressor, the victims, and the aggression-prone environment. The situational perspective suggests that there is a relationship between the environment experienced and rates of aggression (Welsh, Bader, & Evans, 2013). It understands aggression as an act that occurs at a scene permitting the event to take place (Wortley, 2002), and differs from traditional views of violence, where the offender is viewed as the perpetrator, with a supposed "criminal disposition".

Cooke, Wozniak, and Johnstone (2008) found situational drivers to be vital to understanding violence. They examined the history of violence in Scottish prisons, with the shift from a model based on pathologising aggression to an understanding of the influence of situational factors in modifying the rate of institutional violence (Cooke, Wozniak, & Johnstone, 2008). A systematic

approach to understanding situational risk factors was developed in Scotland, labelled promoting risk intervention by situational management (PRISM) (Cooke, Wozniak, & Johnstone, 2008). This will be discussed further in a later section.

Daffern, Mayer, and Martin (2003) found that acute forensic psychiatric wards tended to reveal more aggressive incidents than non-acute wards, and that there were lower levels of aggression on wards with highly structured schedules, procedures, and responsibilities compared to less structured wards. They found a lack of respect and poor communication between staff and patients contributes to aggression, and staff attributes such as limited experience, a denying, inflexible attitude, and a custodial relationship between staff and patients can influence aggression (Daffern, Mayer, & Martin, 2003).

Institutional Violence and Aggression

“Aggressive behaviour in institutional settings is disruptive to the therapeutic environment and a workplace hazard” (Welsh, Bader, & Evans, 2013, p. 792). Within institutions, aggression can occur frequently, and have a negative impact on victims as well as those who witness the aggression (Kasinathan et al., 2015). Institutional violence impacts a wide range of people, services, and properties. It can lead to further violent acts, damage to prison property, acts of self-harm and drug use by the targets of the assailants (Johnson, Nelson, Ghee, & Deardoff, 2013), as well as trauma to staff and other inmates. A negative atmosphere is created, breeding decreased productivity and work satisfaction (Welsh, Bader, & Evans, 2013).

Aggression can be attributable to many causes such as frustration (Berkowitz, 1989), diagnosis, or the adverse influence of the environment

(Needham, et al., 2004). In relation to the environment, how knowledgeable staff were about aggression was found by Needham et al. (2004) to influence their behaviour towards patients, and consequently the number of aggressive instances. Of importance to this study, relationships within prisons and other detention facilities are often based on power and dominance (Johnson, Nelson, Ghee, & Deardoff, 2013), factors which breed violence. Aggression allows offenders to assert their position within their prison environment (Johnson, Nelson, Ghee, & Deardoff, 2013).

Welsh, Bader, and Evans (2013) investigated situational risk factors related to aggression in institutions. In psychiatric inpatient settings, both staff and other patients were at risk of becoming victims. Additionally, temporal factors such as warmer months, organisational factors such as unpredictable wards with unreliable routines, and the physical environment effected violence and aggression. There was a trend for higher violence rates during transitional periods such as shift changes and meal times. Younger staff members were found to be at increased risk for assaults, with experience and more formal training of staff leading to less violence and aggression among patients (Welsh, Bader, & Evans, 2013). Additionally, staff training in both reducing violence and staff well-being after an assault was found to reduce violent incidences. The main limitation of this study was its focus on psychiatric inpatient units, and it is unclear how this can generalise to the prison setting.

The prison setting is a powerful influence on the day-to-day behaviour of prisoners (Cooke, Wozniak, & Johnstone, 2008). For example, as crowding in prisons increases, so do assault rates. Other situational factors include quality of

life experiences, case management, staff factors (including competencies and training), and the prison physical setting and resources (Wilson & Tamatea, 2010).

In violent psychiatric wards, males are more aggressive towards other males, and females more aggressive towards other females (Daffern, Mayer, & Martin, 2003). Of note to studies investigating prison settings, aggressive psychiatric patients were found to be more often admitted involuntarily compared to non-aggressive patients, a demographic shared with all prisoners. Additionally, psychiatric patients who had longer prison exposure tended to be exploitive in their relationships with others, where as other patients did not share this characteristic (Daffern, Mayer, & Martin, 2003).

In relation to personality facets, aggression can be most closely linked to neuroticism, specifically angry hostility (Andrews & Bonta, 2010). Antisocial personality, of which aggression is a key factor, is one of the best predictors of criminal behaviour (Andrews & Bonta, 2010). Schonenberg and Jusyte (2014) investigated the relation of the hostile attribution bias (a tendency to see hostile intent in others) with violent offenders. Results showed that aggression is associated with a strong preference to interpret ambiguous stimuli as hostile (Schonenberg & Jusyte, 2014).

Within the offender subculture, physical, verbal, and social aggression are all common types of aggression, and occur equally among males and females (Johnson, Nelson, Ghee, & Deardoff, 2013). However, it is important to note that a large proportion of offenders who are assessed as 'dangerous' often turn out

to have been inaccurately judged, signifying a large number of false positives (Quinsey & Walker, 1992).

Roberton, Daffern, and Bucks (2015) examined whether difficulty attending to distressing emotions was related to aggression in adult offenders. They found offenders who struggle to attend to their emotions, in particular anger, had extensive histories of aggression compared to those who were able to attend to their emotions. In relation to physiological arousal, people who have difficulty down-regulating high levels of arousal struggle to express anger in an ordinary way, which may eventuate in aggression. Additionally, offending women were more likely to have difficulty attending to their emotions than non-offending women (Roberton, Daffern, & Bucks, 2015).

A link between anger and aggression is demonstrated by angry offenders who have tendencies to yell at, hit, or hurt others. Cognitive processes and physiological arousal mechanisms underly this association (Roberton, Daffern, & Bucks, 2015), as cognitive associations affect an individual's readiness to aggress (Anderson & Bushman, 2002; Roberton, Daffern, & Bucks, 2015). However, this study used self-report questionnaires, so results may have been influenced by social desirability biases (Roberton, Daffern, & Bucks, 2015).

An increasing rate of assaults on staff within New Zealand prisons was attributed to a general increase in violence, gang tensions, hard drug use, and prison crowding (Wilson & Tamatea, 2010). Incidents of prison violence often involve gang members (generally nationwide, organised criminal groups such as Black Power or the Mongrel Mob), and most occur in remand (pending conviction or sentence), or maximum security units (Wilson & Tamatea, 2010).

Assessment of Aggression

This section begins by addressing perspectives on aggression and violence risk assessment in criminal justice contexts. Measures peripheral to these contexts (for example school bullying, child abuse, or warfare) are beyond the scope of this study so are not discussed. It will examine risk assessment measures that have been used to assess risk for aggression among offenders, and also among psychiatric inpatients. It will examine aspects of these assessments, including their strengths and weaknesses. Finally, the development and use of the Dynamic Appraisal of Situational Aggression (DASA) will be discussed.

There are three generations of methods of risk assessment for violence and aggression: first generation, the intuitive method; second generation, the statistical or actuarial method; and third generation, the clinical method (Andrews and Bonta, 2010; Endrass, Rossegger, Frischknecht, Noll, & Urbaniok, 2008; Wong & Gordon, 2006). Specifically relating to offenders, Andrews and Bonta (2010) identified a fourth generation, which follows a case management process and involves actuarial assessment, planning, service delivery, reassessment, and closure. Despite practice often relying on clinical or even intuitive methods, actuarial measures significantly improve the ability of staff to accurately predict aggression. Actuarial methods are those shown through research to statistically predict aggression (Endrass, Rossegger, Frischknecht, Noll, & Urbaniok, 2008). Andrews and Bonta (2010) stress that “despite the difficulties in predicting low-base-rate behaviours, the seriousness of the harm caused to victim’s demands special attention to the prediction of violent

behaviour” (p. 334). Despite often over-predicting violence, assessments are vital so as to not under-predict violence, or worse, not predict it at all (Starzomski & Wilson, 2015). In institutional settings, an assessment for aggression is often conducted by staff using simply their experience and clinical judgement (Ogloff & Daffern, 2006), and is based on the individual’s initial risk status upon entry (Douglas & Skeem, 2005). This is of limited help to unit staff in understanding patients’ or prisoners’ immediate risk (Starzomski & Wilson, 2015). There is a necessity for a structured approach to risk assessment which considers antecedents, behaviours in question, and consequences of those behaviours (Wilson & Tamatea, 2010).

Violence risk assessment has historically focused on individual risk factors, while situational, environmental, and therapeutic factors are overlooked (Cooke, Wozniak, & Johnstone, 2008; Welsh, Bader, & Evans, 2013). Despite current inclinations to social learning and cognitive behavioural interventions which integrate historical factors and immediate situational factors, many risk assessments have a specific focus on primarily static risk factors. For example, the Roc*RoI is an assessment of criminal history, and is based on the principle that the best predictor of future behaviour is past behaviour (Bakker, O'Malley, & Riley, 1999). However, this does not account for the changeable imminent internal state of offenders. Although the Violence Risk Scale (Wong & Gordon, 2000) does assess what is labelled dynamic factors such as *violent lifestyle*, *criminal personality*, and *criminal attitudes*, these dynamic factors are not focused on imminent risk, but on long-term dynamic factors that can be changed through extensive treatment. Douglas and Skeem (2005) defined this as *risk*

status, or the interindividual risk level determined by mainly static risk factors, as compared to *risk state*, or the intraindividual risk level based on current status on dynamic risk factors. Appraisal of risk state can facilitate management, inform and guide treatment, and prevent the negative consequences of violence (Kasinathan et al., 2015).

However, the importance of static factors in violence risk prediction should not be dismissed. Dynamic risk factors are important on a daily basis (Lofthouse, et al., 2014), and are intrinsically linked with static factors, while static factors give an indication of the general risk for aggression. Dynamic risk factors should be a vital part of predicting and preventing violence, along with an examination of offenders' psychological disposition. The Lofthouse et. al. (2014) study examined risk assessment with relation to intellectually disabled offenders; however, this finding can probably be generalised to all offenders.

Of significance to frontline corrections staff is that the information needed to assess dynamic risk factors does not involve extensive background histories or file reviews, and is more easily accessible, so less effortful for staff to complete. Additionally, the information gathered through dynamic risk assessment is practical in terms of risk management (Lofthouse et al., 2014).

If an individual is identified as a high risk case, a dynamic assessment measure could provide immediate information for an intervention plan. Furthermore, the individual's risk level could be reduced in the short term by taking into account and manipulating dynamic risk factors accordingly (p. 131).

Assessment Measures

Now the major assessments that have potential to fill the opening identified in dynamic aggression risk assessment in institutional and with offender populations are discussed.

The Level of Service Inventory – Revised (LSI-R) is based on Andrews and Bonta's (2010) psychology of criminal conduct (PCC). It is a general risk assessment measure for offender recidivism, which predicts long-term violence as well as measures specifically designed for the prediction of violence (Andrews & Bonta, 2010). It has normative samples of offenders in Canada and the United States of America, where validity and reliability have been established, but no norms exist from New Zealand. Additionally, the usefulness of this for floor staff on a day-to-day basis is limited, and assessment of imminent, dynamic risk factors is recommended (Ogloff & Daffern, 2006).

The Historical Clinical Risk Management-20 (HCR-20), now in its third version (Douglas, Hart, Webster, & Belfrage, 2013), was originally developed in Canada by Webster, Douglas, Eaves, and Hart (1997). It is a general violence risk assessment measure which can be used for different purposes, including inpatient psychiatric settings and correctional settings (Chu, Daffern, & Ogloff, 2013). It encompasses three subscales (historical, clinical, and risk management) and holds 20 items (Douglas, Ogloff, Grant, & Nicholls, 1999).

The HCR-20 was one of the first violence risk assessment procedures developed in a structured professional judgement model, is based on empirical literature which demonstrates its relation to violence (Douglas, Ogloff, Grant, & Nicholls, 1999), and has been subject to over a hundred independent empirical

studies (Douglas & Reeves, 2010). Psychometric properties show it has good predictive validity for violent behaviour in clinical practice (de Vries Robbée, de Vogel, Douglas, & Nijman, 2015), and moderate to large correlations have been found between the number of previous violent offences and scores on the HCR-20, with larger effect sizes than those found in the Violence Risk Appraisal Guide (VRAG) and the Psychopathy Checklist, Revised (PCL-R, addressed next; Douglas, Ogloff, Grant, & Nicholls, 1999). However, because of such a broad base of items, it does require at least a moderate degree of clinical skill and training to complete. None-the-less, despite its relative difficulty to score, the HCR-20 has proved to be a successful tool to measure risk for aggression.

The Psychopathy Checklist (PCL; both revised and short version) was developed primarily by Robert Hare (Hare, Harpur, Hakstian, Forth, & Hart, 1990), and is a measure of behavioural, affective, and interpersonal characteristics that assesses the construct of psychopathy on 20 items scored from interview and file information. It was not designed for risk assessment, but it is capable of predicting violent recidivism (Walters & Heilbrun, 2010). It has been found to predict violence well, and scores are significantly related to violence in various samples of offenders (Douglas, Ogloff, Grant, & Nicholls, 1999). Psychometric properties are excellent, with strong reliability, validity, and correlations with the original version (Hare, Harpur, Hakstian, Forth, & Hart, 1990). However, these properties were developed on a male forensic sample in Canada. Additionally, as a measure primarily of psychopathy, it only assesses a segment of aggression risk, and further assessment would be required for a comprehensive assessment.

The Violence Risk Appraisal Guide (VRAG) was developed by Quinsey, Harris, Rice, and Cormier (1998) to predict violent recidivism and assess the risk of aggressive behaviour (Endrass, Rossegger, Frischknecht, Noll, & Urbaniok, 2008). It is comprised of 12 items, including one PCL-R score, and data can be collected solely from documentary material, without any contact with the offenders. Results from psychometric property assessment find the VRAG more accurate than clinical judgement (Quinsey, Harris, Rice, & Cormier, 1998). However, items are comprehensive and the inclusion of a PCL-R item means that must also be scored. Additionally, Endrass, Rossegger, Frischknecht, Noll, and Urbaniok (2008) found it was not suitable for predicting misconducts in prison, finding only a moderate effect. Interestingly, it was found to predict verbal aggressive behaviour in incarcerated sex offenders to a greater degree.

The Brøset Violence Checklist (BVC) was developed by Almvik, Woods, and Rasmussen (2000) specifically to assess imminent violence within psychiatric hospitals (Chu, Daffern, & Ogloff, 2013). Psychometric properties were found to be satisfactory (Almvik, Woods, & Rasmussen, 2000), and within an inpatient psychiatric setting, the Dynamic Appraisal of Situational Aggression (DASA; see below) and BVC were found to have acceptable to outstanding predictive ability and were more accurate than the HCR-20 Clinical scale for predicting imminent inpatient aggression (Chu, Daffern, & Ogloff, 2013).

The Violence Risk Scale (VRS), developed by Wong and Gordon (2000), is individually focused on each offender, and is used to assess the likelihood that an offender will become violent upon release into the community. It is a third generation risk assessment measure that integrates violence assessment,

prediction, and treatment, incorporating 6 static and 20 dynamic items which are each rated 0 to 3 based on risk level. The dynamic items assist in identifying treatment targets linked to violence, and these dynamic items can be influenced by intervention (Wong & Gordon, 2006). Additionally, treatment targets are rated on a 'stages of change' rating which determines the offenders' readiness for treatment (Wong & Gordon, 2006). The VRS has a theoretical basis in Andrews and Bonta's (2010) psychology of criminal conduct, risk-need-responsivity principles, and the transtheoretical model of change (Wong & Gordon, 2006). The dynamic variables, such as attitudes and beliefs, are changeable over long periods, but remain relatively stable in the short term. Thus, the VRS is not particularly useful to prison officers in their day-to-day management of prisoners.

There is often a tendency to pathologise violence and aggression, with few other violence risk assessment tools incorporating protective factors (de Vries Robbé, de Vogel, Douglas, & Nijman, 2015). The Structured Assessment of Protective Factors for violence risk (SAPROF) was developed in the Netherlands by de Vogel, de Vries Robbé, de Ruiter, and Bouman (2011), and specifically for the assessment of protective factors for adult offenders. It contains 17 protective factors organized into three scales (internal, motivational, and external items). The assessment shows promising results in terms of psychometric properties (de Vogel, de Vries Robbé, de Ruiter, & Bouman, 2011), and has been used increasingly alongside the HCR-20 in clinical practice to provide balance to risk assessment. Additionally, it offers guidance for treatment interventions aimed at improving personal, environmental, and situational strengths. However, it is not

particularly useful for prison officers in short term risk prediction, and it takes time to score all 17 items (de Vogel, de Vries Robbé, de Ruiter, & Bouman, 2011).

An assessment that has potential to be useful for prison officers in institutions is Promoting Risk Intervention by Situational Management (PRISM), which was developed in Scotland by Cooke, Wozniak, and Johnstone (2008) following the call for a different approach to offender management after serious violent disruptions in the prisons during the 1980s. It specifies that risk assessment should go beyond merely prediction, and should entail consideration of how to avert future violence; it is a comprehensive examination of a person's history of institutional violence, the institution's physical and security factors, organisational factors, ethos, and priorities, staff features, as well as case management and individualised assessments for violence reduction (Cooke, Wozniak, & Johnstone, 2008). Thus, it focuses on situational factors in the prison environment that are likely to cause offenders to become violent, and consequently, this involves manipulating situational variables, such as staff factors. PRISM adheres to a structured professional judgement approach, whereby decision making is assisted by guidelines developed using empirical research, and it aims to provide a systematic approach to the assessment of institutional risk factors (Cooke, Wozniak, & Johnstone, 2008).

PRISM was applied to a New Zealand maximum security prison context by Wilson and Tamatea (2010). They found distorted views of violence and safety within prison environments, problems in leadership on violence management, and a lack of specific or consistent training or recruitment for working in maximum security influenced institutional violence in this context. However,

PRISM takes time and effort to score, and prison officers often do not have the time needed to adequately score it.

Other recent published literature on violence risk assessment with New Zealand offenders is sparse. The PRISM study by Wilson and Tamatea (2010) is one example of an assessment of situational factors in New Zealand prisons that are relevant to aggressive behaviour among inmates. Other areas have more published literature, such as general re-offending and sexual offending (for example, Skelton, Riley, Wales, and Vess, 2006; Tamatea, 2014). It is likely that the New Zealand Department of Corrections conducts internal research on violence risk assessment, however without publications this will not be available. Thus there is a need for more published literature on violence risk assessment with New Zealand offenders.

Dynamic Appraisal of Situational Aggression

The Dynamic Appraisal of Situational Aggression (DASA) was created originally for use amongst psychiatric inpatients, by Ogloff and Daffern (2006). Their research was designed to identify risk factors to assist staff in identifying the risk for aggression in psychiatric inpatients, and it examined whether a structured risk assessment would enable nurses to more accurately identify imminent violence in patients compared to unstructured clinical judgement. Additionally it aimed to determine the combination of risk variables with the highest predictive validity and which staff could target for remediation, assisting in the prevention of aggression (Ogloff & Daffern, 2006). Results from this research showed that nurses made more accurate judgements following a

review of the risk factors and use of a structured risk assessment (Ogloff & Daffern, 2006).

The DASA is comprised of seven items that were found to be the most accurate at detecting risk of becoming aggressive within 24 hours. Results indicate that the DASA appears well suited for the continuous assessment of risk for imminent aggression. Daffern and Howells (2007) found modest predictive validity, although significantly better than chance, for the prediction of imminent self-harm and aggression in 38 personality disordered patients in a high secure psychiatric hospital. Griffith, Daffern, and Godber (2013) also found evidence for the validity of the DASA. In two non-forensic mental health units, they examined 42 nursing staff's ratings on the DASA compared to clinical judgement, and found DASA scores to be more accurate in identifying risk for imminent aggression. Additionally, despite its initial development for use with acute psychiatric patients, Ogloff and Daffern (2006) state that the items and the principles of actuarial risk assessment that underlie them make it applicable to other settings, including forensics.

In assessing the risk of imminent aggression in institutionalised youth offenders, DASA total scores significantly predicted institutional aggression up to 48 hours after assessment for 49 youth from two units in Singapore, but the predictive validity of the DASA for institutional aggression was modest at best (Chu, Hoo, Daffern, & Tan, 2012). It was also observed that three items (negative attitudes, anger when requests are denied, and unwillingness to follow instructions) more strongly predicted aggression than did the other four items.

The later developed version for youth, DASA:YV (Youth version), was found to significantly predict imminent aggression amongst young offenders hospitalised with a mental illness, with all Area Under the Curve values being significantly greater than chance (i.e. 0.687 – 0.754), and an elevation (score of one or higher) increasing the sensitivity and specificity of the DASA (Kasinathan et al., 2015). Predictive validity of the DASA:YV was constant for different types of aggression (physical aggression towards objects, physical aggression towards other people, and verbal aggression towards other people). They concluded that “structured behaviour ratings by clinicians can assist the appraisal of aggression risk for the next 24 hours, in young offenders hospitalised with a mental illness” (Kasinathan et al., 2015, p. 46). This study also found that staff witnessing elevations on the DASA influenced management and treatment, and changed staff behaviour, in an effort to reduce occurrences of aggression.

Intervention

So as to be of practical use in the field, violence risk assessment must infiltrate concepts of violence prevention, management, and treatment (Douglas & Skeem, 2005). This section will briefly discuss interventions relative to dynamic aggression.

The intention is to intervene early, as soon as a patient reaches a moderate level of risk and with interventions that do not impinge on the liberty of the patient but manage their propensity for aggression (Griffith, Daffern, & Godber, 2013, p. 490).

Interventions based on violence risk assessment must also be well-grounded in theory and research. It is important to be mindful of research supporting, or disconfirming, particular intervention strategies, and to be aware of the theoretical basis of those interventions (Day & Howells, 2000).

For longer-term interventions, many practitioners follow a social learning model (Andrews & Bonta, 2010), which are (generally) well-grounded in research. Anderson and Bushman (2002) suggest multisystemic therapy as the treatment showing most promise, and that most closely aligned with GAM. Additionally, intensive anger-management programmes (over 25 hours) appear to have an impact in reducing recidivism (Day & Howells, 2000). Programmes should also be multimodal, and include motivational aspects as well as opportunities to practice skills. They should have a focus on those factors pertinent to aggression, primarily script rehearsal, problematic anger, and normative beliefs supportive of aggression (Hosie, Gilbert, Simpson, & Daffern, 2014).

Robertson, Daffern, and Bucks (2015), support emotion-focused treatments, and promote the separation of emotion and behaviour. Interventions should focus on controlling aggressive behaviour while simultaneously experiencing anger emotions. People should attend to, rather than avoid, the anger experience. Additionally, a person's aptitude to control their behaviour when angry, rather than control anger itself, reduces aggressive behaviour. With relation to offender behaviour, intervention programs for aggressive behaviour need to emphasize anger, and the importance of attending to, rather than suppressing, the experience of anger to control aggression in the

face of strong emotions. A focus on anger control, instead of emotion regulation, can lead to the suppression of intense emotions, and suppressing the anger experience actually increases aggression rather than reducing it through creating ongoing frustrations (Robertson, Daffern, & Bucks, 2015).

Conversely, an over focus on individual factors can also lead to inaccurate predictions of aggression, and an emphasis of intervention only on particularly disruptive prisoners. Dynamic factors provide opportunities for violence prevention as they allow coverage of a larger group of offenders (Wilson & Tamatea, 2010), and consequently less likelihood of oversights for potential aggression.

The PRISM approach that was mentioned previously emphasises the importance of situational factors. PRISM identifies the need for different interventions based on the diversity of situational risk factors (Cooke, Wozniak, & Johnstone, 2008). In New Zealand maximum security prison units, security features around the number of prisoners unlocked at any given time was significant, with fewer prisoners unlocked creating unrest, being seen by prisoners as an infringement on their freedom, and subsequently leading to more violence. When staff show empathy and are responsive towards prisoners, prisoners appear happier and are less likely to aggress (Wilson & Tamatea, 2010). Issues around case management most commonly stem from gang rivalries, and staff identified difficulties with placing offenders in units to preserve gang diversity (Wilson & Tamatea, 2010). Weapon-use in prison violence was of importance, and a significant cultural difference between Scottish prisons and New Zealand prisons (Wilson & Tamatea, 2010). Concluding findings were that

staff subsequently managed risk by reducing the 'heat' through providing enriched environments, active management, and progressive regimes which gave prisoners access to the gym and other activities (Wilson & Tamatea, 2010). They felt that this improved relations between prisoners and staff, and made a difference to overall behaviours in the unit.

Wortley (2002) also argued that through manipulation of situational and environmental variables, it is possible to control prisoners' behaviour, just as it would be possible to control their behaviour at the crime scene, had such variables been controlled. He assumes behaviour is inherently dependent on current circumstances; if the environment is manipulated, the possibility of violence can be significantly decreased (Wortley, 2002). Situational control is able to reduce aggression and other unwanted behaviour temporarily, however, unlike therapeutic interventions, it is not designed to change the individual. Across other situations, where cues for aggression are present, it is still often probable, that such behaviour will occur.

Interventions should focus on understanding situational risk factors and controlling the environment to avoid aggression-causing stimuli (Cooke, Wozniak, & Johnstone, 2008). However, it should be noted that secluding aggressive individuals can increase the likelihood of aggression towards staff in the long-term (Daffern, Mayer, & Martin, 2003).

This literature review discussed literature relevant to the use of the DASA for risk assessment of violence among New Zealand offenders. Firstly it addressed aggression in general; the theoretical standpoints that have been popular over the years, types of aggression, and dynamic aggression in

particular. Following this, the assessment of aggression was addressed, and the usefulness of Dynamic Appraisal of Situational Aggression. Lastly, intervention was addressed as the logical next step following assessment and identification of high risk offenders. The next chapter introduces the current study and outlines the research questions and hypotheses that will be addressed.

Chapter Two: Introduction to This Study

As has been outlined in previous chapters, aggression and violence are important problems that society must face (Gontkovsky, 2002). When it comes to violence by offenders, custodial staff are on the front line, and are susceptible to being exposed to, or even the target of, interpersonal aggression in prison contexts. Aggression amongst offenders is well worth addressing as it can be a hazard to the security and wellbeing of staff and other offenders. Its treatment and management have a long history, and this history involves policy blunders due to a paucity of empirical research (Quinsey, Harris, Rice, & Cormier, 1998). To be able to treat violent offenders, those working with these individuals, primarily custodial staff, must have an understanding of the mechanisms of aggressive and violent behaviour (Gontkovsky, 2002). This understanding would also add value to the ability to assess for dynamic factors involved in aggression, as the ability to systematically assess for acute, day-to-day aggression in prison settings has not been widely developed.

Aggression among offenders, particularly those incarcerated in prison is of particular significance because of the nature of the environment and the peers prisoners are surrounded by. As described by Gillett and Tamatea (2012) in relation to the development of a cycle of violence, the training of a prosocial conscience comes from living among others without constantly being suspicious and engaged in self-protection and counter-aggression. In prison situations, hostility is a persistent concern, resentment is prevalent, and there is “a climate of violence and a lack of emotionally nurturing and life-enhancing engagement

with others” (Gillett & Tamatea, 2012, p. 47), leading to higher likelihoods of violence and aggression. As described by Miller, Sears, Mowrer, Doob, and Dollard (1941), repeated disappointments and betrayal, which are common within prisons, are likely to lead to frustration and often to subsequent aggression.

These points have attempted to make it clear that aggression amongst offenders, specifically New Zealand offenders in this context, is something that needs to be understood by staff so that strategies can be developed to decrease, both in the short and long term, the likelihood of an aggressive act occurring.

The DASA was created originally for use amongst psychiatric inpatients, by Ogloff and Daffern (2006). A recent report following the trial use of the DASA with New Zealand prison units noted that the DASA has potential to “inform knowledge and capability around risk management” (Kilgour & Wilson, 2014, p. 16), through its selective use, and only once it has been validated in a larger sample (the trial sample being too small for any solid conclusions to be made). Additionally, as aggression is a low-occurrence behaviour, the number of aggressive acts in the trial was too low for significance testing. However, the trial did find a trend for high DASA scores to be associated with aggressive behaviour, and higher scores were also associated with more serious aggressive acts (Kilgour & Wilson, 2014). Fifty four percent of recorded prisoner aggression was predicted by elevations (i.e., scores higher than one) on the DASA in the 24 hours beforehand. Results were similar for a second unit, but this trial only monitored those prisoners who were currently identified as a management concern (Kilgour & Wilson, 2014).

Pilot study

In the year prior to the current study, a pilot study was carried out by the Department of Corrections in two prison units (Spring Hill Correctional Facility Management Unit and a sample from Unit 14B Kaari 'Under 25s' unit) to gauge the possibility of using the DASA with a New Zealand offender population. This pilot study ran from September to December 2013. The DASA was found to have potential to "inform knowledge and capability around risk management" (Kilgour & Wilson, 2014, p. 16). However, as aggression is low-occurrence behaviour, the number of aggressive acts in the trial was too low for significance testing. Nonetheless, the trial did find a trend for high DASA scores to be associated with aggressive behaviour, and higher scores were also associated with more serious aggressive acts (Kilgour & Wilson, 2014).

Feedback from corrections officers showed that staff were initially apprehensive about the measure adding to their workload, but upon seeing the benefits, they noted that it was actually easier than other paperwork. They stated that the DASA should be used only with new prisoners, or those known to be a management concern (Kilgour & Wilson, 2014).

In 89% of cases with DASA elevations, aggression did not occur in the following 24 hours, showing false positives (Kilgour & Wilson, 2014). However, staff reported using greater caution around prisoners with elevations, which could counter risk for aggression. Also, as aggression is often reactions to management within the facility, education for staff about behaviour and improved communication between staff and offenders may reduce aggression in

those who previously responded angrily to demands and were unwilling to accept limits. Although this is a limitation on collecting “clean” data, it is practically useful in that an important goal within prison units is to reduce aggressive behaviours. The current research examined staff perspectives on the influences of using the DASA on their treatment of offenders.

The Present Study

The current study aimed to evaluate the use of the DASA for staff in risk assessment and also in offender treatment in four different correctional units. Predictive accuracy of the measure in relation to risk assessment was examined at Waikeria Prison’s medium-high security unit, Auckland Regional Women’s Corrections Facility, Auckland Paremoro Prison’s Maximum Security C block, and Tai Aroha residential community-based programme for high-risk offenders. Additionally, how treatment impacted on aggressive behaviour was observed at Paremoro Prison’s Maximum Security and Tai Aroha. It also examined the opinions of custodial staff in relation to the ease of administration, their perception of the measure’s effectiveness with their unit, and whether its addition improved efficacy of offender management.

In sum, the following research questions were the focus of this study:

1. Is the DASA able to reliably predict aggression in a 48 hour period, following assessment in the first 24 hours?
2. Was the DASA easy to use by custodial staff, and did they perceive the measure to be effective in their work? Additionally, how can staff influence the occurrences of aggression?

Based on these research questions, a set of three hypotheses were formed.

1. The DASA will demonstrate predictive validity with aggressive prisoners.
2. Staff will find the DASA relatively easy to administer, and they will perceive benefits from its use in their unit. Additionally, staff will influence the occurrences of aggression by implementing strategies that will reduce the likelihood of aggression occurring.

The evaluation aimed to examine the current literature on situational aggression and to ensure that using this measure follows clinical best practice. This study makes a special contribution to the Department of Corrections, but also to the field of correctional psychology. No prior research was found on measurement of dynamic, day-to-day aggression in a sample of New Zealand offenders. Therefore, this study provides new knowledge and ideas for professionals and other staff who may be exposed to such aggression.

Chapter Three: Method

Setting

This study took place under the scope of two organisations (the University of Waikato, and the New Zealand Department of Corrections), and so underwent thorough review processes from both organisations. The New Zealand Department of Corrections requested an examination of the utility of the DASA) in its use with New Zealand offenders. As a master's student and casual employee of the Department of Corrections, the author was approached to undertake the research. All research undertaken at the University of Waikato must be reviewed for its appropriateness, so ethics approval was sought from the School of Psychology Ethics committee which acts under the delegated authority of the University of Waikato Human Research Ethics Committee. The University Of Waikato School Of Psychology Ethics Committee approved the study.

The study was set across four different locations: Auckland Paremoro Prison's Maximum Security (where the offenders were undergoing a High Risk Personality Programme-Revised, HRPP-R), Auckland Women's Regional Correctional Facility (the high security unit), Waikeria Prison (the medium-high security unit); and Tai Aroha (a residential community-based programme for high-risk offenders). Both Paremoro Prison's Maximum Security and Tai Aroha were treatment-based units, where offenders were undergoing treatment for their offending for the duration of the study. Auckland Women's Prison and Waikeria Prison units are high to high-medium security, and offenders often

move in and out of these units depending on their behaviour. Nine HRPP-R prisoners in a high-security unit at Christchurch Prison were initially to be involved also, but staff at Christchurch Prison did not reliably complete the measure during the trial and so records from this site could not be analysed.

Table 1

Comparing the four different locations

	Location	Community or prison?	Security classification	Gender	Type of unit
Paremoremo Prison	Auckland	Prison	Maximum	Male	Treatment program
Auckland Women's Prison	Manakau City, Auckland	Prison	High	Female	Regular unit
Waikeria Prison	South of Te Awamutu	Prison	Medium-high	Male	Regular unit
Tai Aroha	Hamilton City	Community	Low	Male	Treatment program

Participants

The participants comprised a sample of 23 corrections staff across the four sites, who participated in administering the DASA on pre-selected offenders. They were primarily prison officers, and there were Principle Correctional Officers (PCOs) in each of the prison-based units, and management staff at Tai Aroha. Demographic data was not taken on the staff, so a precise demographic picture of staff is not available. Ethnicities of staff were primarily Māori, with Pākehā and Pacifica staff as well. There was a gender mix with male and female staff in all units, except Paremoremo Prison where there were no female staff

involved. The majority of staff who were interviewed had been working in their unit for a long period of time, were aged thirty to forty, and were familiar with offender behaviour.

The Department of Corrections was considered the participant for the archival data on offenders, as it was from them that consent was sought. The Department, through the 'gatekeeper' Glen Kilgour, gave permission for the author to have access to both DASA data that was being collected by prison staff, as well as archival data on the offenders on which the DASA was conducted. This created a complicated pathway to consent, whereby offenders were unaware that data was being collected about them (this will be discussed in the section on ethical considerations and consent), staff collected the data, but the Department of Corrections was the holder of the data, so was considered the participant from which consent was sought.

The Department of Corrections in New Zealand was formed in 1995 on the principles of rehabilitation and public safety, and deals with all convicted offenders, in the community and in prison. They aim to protect the New Zealand public by creating strategies to reduce reoffending, with the current primary goal being to reduce reoffending by 25% by 2017 (Department of Corrections, 2015). The Department, and all those who work for the Department, ensure offenders in the community comply with the sentences and provide them with rehabilitation programmes and job training that will break the cycle of re-offending (Department of Corrections, 2015). There are currently around 7,500 employees working over 151 sites and 18 prisons, with the most recent statistics

revealing 8641 offenders in prison in December 2014 (Department of Corrections, 2015).

Research Design

This study used a mixed method approach to investigate the utility and predictive ability of the DASA in four New Zealand offender settings. Both qualitative and quantitative data were collected, in the form of interviews and surveys, and daily DASA ratings and aggressive incidents, respectively.

A non-experimental approach was taken in collecting qualitative data in an effort to understand what staff thought about the DASA. Mitchell and Jolley (2013) describe three objectives that must be met in order to conduct a successful survey: the research hypotheses must be clear on what to measure, surveys must accurately measure the thoughts they are intended to measure, and results must be generalisable to a certain group. The survey used in the current study aimed to address hypothesis two outlined in the introduction (staff will find the DASA relatively easy to administer, and they will perceive benefits from its use in their unit). Thus, interviews and surveys need to measure staff opinions about ease of administration, whether they perceive benefits from using the DASA, and what those benefits might be. Surveys and interviews attempted to address these issues, and the outlines can be viewed in Appendices A and B. Opinions were sought from staff at all four units in an attempt to improve generalisability to prison units and other offender units across New Zealand.

Interviews were also conducted with certain staff, and one obvious difference between the survey and interview is the modality used (Mitchell &

Jolley, 2013). In surveys, written answers are provided for written questions, while in interviews, verbal answers are given for questions asked verbally. Additionally, surveys can be administered online (Breakwell, Hammond, Fife-Schaw, & Smith, 2006), and this was the method chosen for the current study. The advantages of the online survey include fast turnaround times, reduced cost, and easy analysis of data, with many survey programs having a basic analysis function (for example Survey Monkey (www.surveymonkey.com, 2014)). There is a disadvantage of online surveys whereby representative samples are difficult due to low use of the internet within certain populations in society (Breakwell, Hammond, Fife-Schaw, & Smith, 2006). However, all staff in the current study had access to a Corrections work email, so the survey was representative of Corrections Officers.

Compared to surveys, interviews are more time consuming, more subjective, and more open to interviewer bias. Another methodological disadvantage of the interview is that respondents may give socially desirable responses rather than answering truthfully in an effort to impress the interviewer. However, in exploratory studies, where all significant variables may not yet have been identified, the clear advantage of interviews is that they allow for clarification of questions respondents do not understand, and for follow-up on responses the interviewer does not understand (Mitchell & Jolley, 2013).

A semistructured interview was used; an advantage of this being that the interviewer is able to explore responses in more depth (Mitchell & Jolley, 2013). A disadvantage of this is that data from follow-up questions is often difficult to

interpret and compare across participants. Additionally, “in giving the interviewer more freedom to follow up answers, you may be giving the interviewer more freedom to bias the results” (p. 302).

The use of both the interview and the survey demonstrates within method triangulation, or the use of a variety of independent methods (Casey & Murphy, 2009). “Since they are independent methods, they have different strengths and weaknesses. The outcome should yield completeness, give convincing data and unveil and irregularities that may reveal a different perspective” (p. 41). Additionally, multiple methods permits achievement of the best of both methods, and overcomes methodological insufficiencies.

Within method triangulation was chosen because it was deemed that, while the interview would produce a greater complexity of information, the survey would produce unbiased results, buffering possible bias in interviews. Thus, a survey was used to gain honest, anonymous answers, while interviews were used to clarify and follow-up on staff thoughts and opinions.

Additionally, across method triangulation was used in the current study, whereby both qualitative and quantitative data collection methods were utilised. Simultaneous triangulation means that the findings from each method are complimentary (Casey & Murphy, 2009), as was the case with the current study. Qualitative data of staff opinions was collected to compliment quantitative findings on the predictiveness of the DASA. Triangulation, or mixed method approaches, aid in the achievement of more complete data and confirmation of data. A more holistic understanding of the data can be achieved by using

multiple data collection methods. This ultimately leads to a more comprehensive study. Also, when findings are consistent, more confidence can be attributed to the credibility of those findings, enhancing validity (Casey & Murphy, 2009). Thus, the primary rationale for using a mixed method approach is for a holistic understanding of the data and to increase the validity of findings.

Descriptive research was used for quantitative data. This can be used to test hypotheses and answer questions about occurrences of behaviours, but cannot address causes of behaviours (Mitchell & Jolley, 2013). It can examine relationships between variables to see whether they correlate. The current study looked at the relationships between offender characteristics, scores on the DASA, and incidents of aggression.

The main advantage of descriptive methods is the ability to use them when variables cannot be manipulated, for either ethical or practical reasons (Mitchell & Jolley, 2013). In the current study variables in prison environments could not be manipulated, for both ethical and practical reasons. Ethically, consent was not gained from offenders, or even the Department of Corrections for any contact by the author with offenders. Indeed, the author is not experienced in interacting with prisoners, so serious harm could have come from such an intrusion, to prisoners, staff or the author, in the form of physical harm or upsets to the environment potentially leading to psychological harm. Most importantly, this study deals with high risk violent men, so manipulating variables around them could increase the risk for harm, both to themselves, and to those around them. Also practically, corrections staff are very busy and

intruding into their work is practically not feasible. They have many tasks to do every day and may simply not have the time to manipulate aspects relating to offenders DASA scores.

Descriptive methods give flexibility to test hypotheses that measurable variables are related, when those variables cannot be manipulated (Mitchell & Jolley, 2013). That is, they occur whether we are present to observe them or not. Staff took DASA scores on offenders, but behaviours resulting in those DASA scores occurred whether staff were taking scores or not. Additionally, aggressive acts would have occurred whether or not they were recorded. Thus the hypothesis that aggression and scores on the DASA are related (and that DASA scores predict aggression) was tested. Analytic approaches used to test this hypothesis are described in a later section.

Measures

Dynamic Appraisal of Situational Aggression (DASA)

The Dynamic Appraisal of Situational Aggression (Ogloff & Daffern, 2006) is a seven-item rating measure designed for use by custodial staff to provide rapid appraisals of institutional aggression in order to intervene and reduce the likelihood of actual violent behaviour. It combines items found to have the strongest individual associations with violence (Ogloff & Daffern, 2006): two items from the HCR-20 (Webster, Douglas, Eaves, & Hart, 1997) (negative attitudes and impulsivity), two items from the Brøset Violence Checklist (BVC) (Almvik, Woods, & Rasmussen, 2000) (irritability and verbal threats), and three items from Ogloff and Daffern's own research (sensitive to perceived

provocation, easily angered when requests are denied, and unwillingness to follow directions). Combined, there is a total of seven items, which are scored each day as either present (1) or absent (0).

With only seven items, it is relatively brief to administer, and should take less than five minutes to complete. Thus, it allows for the continuous monitoring of risk for aggression. According to initial research on the DASA (Ogloff & Daffern, 2006), a patient with a score of seven (the highest possible score for any single day) is 29 times more likely than one who scored zero to engage in physical aggression. In addition to this, the DASA has a tick-box section where three types of aggression can be marked as present or absent for each day.

Table 2

DASA categories of aggression

Physical Aggression towards Objects	Slams door, throws objects down, kicks furniture, breaks objects, smashes windows, sets fires, throws objects
Verbal Aggression towards Other People	Shouts angrily, insults, curses viciously, uses foul language in anger, or makes clear threats of violence to others
Physical Aggression towards Other People	Makes threatening gesture, swings at people, grabs at clothes, strikes, kicks, pushes, pulls hair, or attacks others

Table 3

DASA items and item descriptions

Irritability	Easily annoyed or angered and unable to tolerate the presence of others.
Impulsivity	Dramatic fluctuations in mood or general demeanour. An inability to remain composed. Impulsive prisoners/residents are quick to (over-) react to real and imagined slights, insults, and disappointments.
Unwillingness to follow directions	Aggression often occurs following a demand, where the prisoner/resident is motivated to avoid the demand or when annoyed by having to do something they do not want to do.
Sensitive to perceived provocation	Aggression often occurs following perceived provocation. Provocation may include disrespectful treatment; unfairness/injustice; frustration/interruption; annoying traits; and irritations.
Easily angered when requests are denied	Aggression may occur following the denial of a request that has been made by the prisoner/resident.
Negative attitudes	To assess negative attitudes the assessor needs to be attentive to current attitudinal states which may relate to violence. In scoring this item it is important to determine the extent to which an individual's attitudes are pro- or anti-social. Current attitudes toward other people, social agencies and institutions and the law or other authority may be taken into account. Present attitudes toward past violence, and whether genuine sorrow and regret, is expressed, or whether the prisoner is remorseless, callous, and lacking empathy, sadistic, homicidal, or paranoid may be considered. This item does not refer to occasional pessimism.
Verbal threats	Prisoners/residents who have recently been verbally aggressive are more likely to be physically aggressive in the short term.

Slight changes were made to the DASA for its use with offender populations as opposed to psychiatric inpatients, upon consultation by a psychologist within the Department of Corrections (Glen Kilgour) with Michael Daffern. These involved the rewording of *patient* to *prisoner* in the first instance, and then to *resident* specifically for use at Tai Aroha where offenders are referred to by staff as 'residents'. A recording form was developed for a week's worth of recording observations on a single prisoner on a sheet of A4 paper. While in the original format, only patient's names were included, the modified forms included Person Record Numbers (PRN; Department of Corrections' identifying numbers for offenders) and unit, as well as a section for relevant detail regarding incidents, and guidelines on scoring on the reverse side of the sheet (see Appendix C). Scoring guidelines outline behaviours and affect needed for scores of one or zero on each item, and have a section on interpretation which categorises overall scores of 0-1 as low risk, 2-3 as moderate risk, and >3 as high risk. This format appeared to work well for staff who could immediately clarify scoring ambiguity by using a single readily available reference.

RoC*RoI

RoC*RoI scores were also included in demographic data for offenders. RoC*RoI is a pre-sentence tool developed for the Department of Corrections to assess risk of reconviction and risk of imprisonment on all offenders who plead or are found guilty (Bakker, O'Malley, and Riley, 1999). It addresses the risk component of the risk, need, and responsivity (RNR) principles (Andrews & Bonta, 2010). The main aspect of risk in RNR is that criminal behaviour can be predicted, and also that level of treatment service should be matched to the risk

level of the offender (Andrews & Bonta, 2010). Thus, offenders are placed in treatment services according to their risk level, and high risk offenders, according to their RoC*RoI scores, are not placed with low risk offenders.

RoC*RoI scores are calculated using logistic regression to assess the probability that the offender will firstly be reconvicted, and secondly be imprisoned, based on their full criminal history. Thus, the RoC*RoI does not examine factors that change over time or may respond to treatment, as this would require much more resourcing and time from the Department of Corrections. Scores range from zero to one, with higher scores indicating higher risk for reconviction and imprisonment. Offenders are then placed in a risk category based on their score, with 0.50-0.64 indicating medium risk, 0.65-0.89 indicating high risk, and 0.90-1.00 indicating very high risk (Waitangi Tribunal, 2005). Studies on the psychometric properties of Roc*RoI have found 74-76% accuracy in predicting violent reconvictions over a two and five year period (Bakker, O'Malley, & Riley, 1998). However, the RoC*RoI was not designed to predict imminent aggression as the DASA was, so cannot be expected to perform this task. It was merely included as a comparison of an already utilised tool within Corrections.

Interview and survey

A semi-structured interview was used, constructed around standard questions (see Appendix A). The interview consisted of ten broad questions for Waikeria Prison and Auckland Women's Prison, and an extra question on informing treatment for Tai Aroha and Paremoremo Prison's Maximum Security. This was because the latter units were treatment-based units. The italics in the

Appendix were suggestions for follow-up questions, and were not followed strictly. The aim of the interview was to explore in more depth than was possible from the surveys how staff felt about using the DASA in their unit.

The surveys were constructed using the survey tool *Survey Monkey*. Survey Monkey is an online programme that allows for the development and use of surveys over the internet (Waclawski, 2012). The research budget was limited, so the *Select* subscription service was used (the cheapest), which allowed for 10 questions. After consideration, nine key questions were included (see Appendix B). These included Likert scale questions, and tick-box questions, and there was the opportunity for respondents to write comments on some questions. *Survey Monkey* allowed for basic online analyses of the responses, and results were added to an Excel file for further analyses.

Both the interviews and surveys constituted a question relating to whether staff believed they changed their behaviour towards offenders when there had been an elevation, and interview participants were asked whether, and in what way, they thought this might influence the offender's behaviour. This was specifically to address the second part of hypothesis two, which says that *staff will influence the occurrences of aggression by implementing strategies that will reduce the likelihood of aggression occurring*.

Procedures

Training

Training of staff in the use of the DASA occurred at the respective sites under the guidance of Glen Kilgour, Registered Clinical Psychologist and Principle

Advisor Special Treatment Unit Development for the Department of Corrections. The author attended and assisted with the training at AWRCF. Training took approximately one hour, and staff who were unable to attend were effectively trained by staff who had attended. Either the author or Glen Kilgour visited each unit intermittently through the trial to pick up record forms, provide support and encouragement for the trial, and conduct interviews with staff participants.

Data collection

The pilot study identified that custody staff recommended that the DASA was most appropriate for prisoners identified as a current or potential management concern (Kilgour & Wilson, 2014). Staff in the current study were instructed to identify through consensus, five or six offenders who posed the highest management concern and who they anticipated would be most likely to be aggressive. Once data collection using the DASA was underway, supervision and custodial staff were interviewed regarding their opinions on using the DASA. In each unit, the PCO or staff member in charge of overseeing DASA administration was interviewed in person, and additional staff were interviewed at Tai Aroha, Waikeria Prison, and Auckland Women's Prison. A survey monkey message (see Appendix B for the questions) was sent to all staff involved, in the form of a personalised email with a link to the survey. This received a total response number of 25. However, two surveys were incomplete, so only 23 were included in the analysis.

Individual information letters were sent to each PCO (see Appendix D). These advised staff of their rights in the research, particularly their right to withdraw. Participant's consent to participate in the survey was given by them

sending back the survey. A time was arranged to meet with PCOs or other staff for one-on-one interviews.

Prior to the interview, staff signed a consent form (see Appendix E) detailing that they understood what the research involved, and they understood their rights in participating. The interview was semi-structured, and staff were encouraged to provide feedback about the measure's ease of use, scope of use, advantages of use within their unit, and any issues or concerns. Interviews were undertaken at the prison units, after at least one month since the tool was implemented.

Analytic approach

With regards to the scoring of the DASA, it was done collaboratively amongst staff, so inter-rater reliability could not be measured on DASA scores. The inability to measure inter-rater reliability is a barrier to appropriately assessing the reliability with which staff were able to score offenders risk for aggression, as risk assessment depends partly on the subjective clinical interpretations of staff (van der Knaap, Leenarts, Born, & Oosterveld, 2012). Never-the-less, van der Knaap et. al. (2012) found that probation officers were generally quite good at reaching the same conclusions about risk of reconviction factors for an offender, indicating high inter-rater reliability.

The benefits of collaborative scoring are real-world and include facilitation of discussion about noteworthy offender's behaviour and increased awareness amongst staff of that behaviour. There is evidence that having strong, directive leaders can enhance performance and decision making (Kerr & Tindale,

2004). However, groupthink, or thinking as a group, can result in unchallenged, poor-quality decision-making and can hinder collaborative scoring, so should be considered (Kerr & Tindale, 2004). Thus, depending on the cohesiveness of the group, and group processes, this collaborative scoring could be a strength of the method, or it could be a disadvantage.

Inter-rater reliability can be measured with regards to opinions on the DASA, collected through surveys and interviews. Answers to specific surveys were compared and basic descriptive statistics were generated. Interview questions were open-ended so there was space for more variability in the answers. Responses were coded for significant differences, as well as similarities. The degree to which different, independent sources of information converge on the same conclusion is an important validating strategy (Vertue & Haig, 2008). Therefore, the more staff come to the same or similar conclusions about the DASA, the more validated our opinion is about it. Alternatively, if all staff disagree, the validity of any conclusions would be questionable. The use of the online survey contributed to replication of the data, as well as checking for temporal stability and internal consistency in staff's opinions. "Triangulation is a constructive replication strategy that involves the use of more than one method to study the same thing" (Vertue & Haig, 2008, p. 1058). In the present study, interviews were conducted with PCOs, online surveys were sent to all officers working in the units, and DASA scores were analysed to check for predictive ability. Thus, multiple sources of information could be analysed to confirm (or disconfirm) the utility of the DASA in correctional settings.

Data analysis

SPSS Statistics for Windows, Version 21.0 was used to analyse the data. SPSS is the statistical analysis program of choice for psychologists and other social scientists because it is much easier to learn than other statistics packages, and it has been developed primarily for social scientists so includes many of the statistics frequently used by psychologists (Coakes & Ong, 2011).

Correlational techniques are often used in quasi-experimental designs, where variables are not directly manipulated, but exist naturally (Pallant, 2007). They are used to describe the strength and direction of the linear relationship between two variables. In the present study, aggression exists and occurs whether we are present and measuring it or not. This research aimed to understand the variables and behaviours that precipitate aggression, and examine whether the DASA accurately assesses those behaviours. Thus correlational techniques were appropriate, and were taken between aggressive days, high risk days, and each individual item on the DASA. However, these correlations cannot add to the predictive validity as they do not refer to same-day or consecutive day scores; they will merely highlight (or disconfirm) a relationship between elevations on the DASA items and aggressive days.

Bivariate regression can be used to predict scores on one variable from scores on another variable (Pallant, 2007), so appears appropriate for this study. Additionally, multiple regression can be used to predict scores on a dependent variable from scores of a number of independent variables (Pallant, 2007). However, despite their potential ability to answer the research question, the

data did not meet the assumptions of multicollinearity for multiple and logistic regression, so these techniques could not be used.

The Kruskal-Wallis Test is the non-parametric alternative to a one-way between-groups analysis of variance (Pallant, 2007). It allows comparison of the scores on continuous variables for 2 or more groups (Coakes & Ong, 2011; Pallant, 2007). Aggressive days were compared with the number of high risk days (divided into few (0-4), moderate (5-14), and many (15 +)). This test allows for the comparison of each risk group to the number of aggressive days. If aggressive days are higher for those with many high risk days, we can say there is a relationship between aggressive days and high DASA risk rating. However, we cannot yet say that DASA scores *predict* aggressive days, merely that there is a relationship. The Post hoc test for this is a Mann-Whitney U test. This is used to find out which of the groups are significantly different from one another (Pallant, 2007). In order to compare all three groups, a Bonferonni adjustment was used to control for Type 1 errors. This means a stricter alpha level was used to determine significance.

One-way analysis of variance (ANOVA) and Levene's test for homogeneity of variances was used. Colman (2014) describes ANOVA as a method for testing the significance of differences among means by separating the total variance in the dependent variable into effects due to the independent variable. It is appropriate for comparing the means of more than two levels of an independent variable (Coakes & Ong, 2011). For the current study, the significance of differences between total variance for aggressive days due to number of high

risk days (on the three levels described earlier) were tested. Tukey's HSD will be used for post hoc comparisons if significant differences are found, to determine between which groups the significant difference lies (Pallant, 2007).

It is important to remember that these statistical techniques need to be considered with regards to the small sample size (N=19), which can influence the data quite heavily (Field, 2009). The use of an ANOVA alongside the Kruskal-Wallis Test allowed for more robust results considering the small sample size.

Survival Analysis was used to assess predictive ability. This technique deals with the time it takes for something to happen (Tabachnick & Fidell, 2007). The current study examined the time it took for an offender to become aggressive. The goal was to determine if survival (time without aggression) depended on risk assessment by assessing the relationship between survival time and a set of predictors (moderate or high DASA scores and also RoC*RoI rating from the onset of the data collecting period), to determine whether differences were present after statistically controlling for other covariates. When choosing a method of survival analysis, how to deal with any censored data needs to be considered (Tabachnick & Fidell, 2007).

Kaplan-Meier estimate deals with censored data by assuming situations, computing probabilities of an event occurring at a certain time point and "multiplying these successive probabilities by any earlier computed probabilities to get the final estimate" (Goel, Khanna, & Kishore, 2010). It calculates a single survival statistic each time an event is observed, which summarises survival time and represents the number of cases observed to survive beyond that point

divided by the number at risk (Tabachnick & Fidell, 2007). Kaplan-Meier represents the distribution of survival times, produces stepped curves which show the cumulative probability of experiencing the event over time, and in the present study, decreases when an aggressive act occurs. When aggression does not occur, the case is censored, and if the last time is not an event, the statistic does not go to zero, but assumes the case is still at risk of aggression.

As well as comparing survival based on DASA scores, RoC*RoI scores will be included, and survival times to offenders first aggressive incident will be analysed. This will be used to compare predictive validity to an already well utilised measure, and assess whether the DASA adds incremental predictive validity.

Qualitative data (i.e. survey and interviews) was analysed using Microsoft Excel (Microsoft Office 2010). Survey results were input into the file and histogram graphs were generated to compare the number of responses to each answer for each question. Percentages were then calculated to determine the percentage of staff agreeing with the statement. The interviews were transcribed and transcripts were analysed for patterns. Interviews were then coded to differentiate opinions from across the units, and also to ensure that identities were kept secure from interception or use for non-research purposes. Themes were identified in each unit, and these themes were compared across all units.

Ethical considerations

Ethical dilemmas are inherent to research, and any study involving the use of human participants must include extensive consideration of ethical principles

(Rogers, 1987). Research on sensitive topics presents further issues (Munford, Sanders, Veitch, & Conder, 2008), with aggression being viewed as a sensitive topic.

Thus, considerable deliberation needs to be employed on how the author worked and behaved while conducting research, in an effort to remain morally committed and responsible towards participants, and all involved. Conscious engagement and reflection on moral values and beliefs impacting on participants and how they are viewed is crucial (Munford, Sanders, Veitch, & Conder, 2008).

Links can be made between ethical issues in clinical practice, and those in research practice. Munford, Sanders, Veitch, and Conder (2008) suggest identifying how ethical issues are addressed in clinical practice and using that as a framework for exploring related ethical issues in research.

Ethics of care

“In carrying out research, psychologists recognise that a basic ethical expectation is that research activities will benefit members of society or, at least, do no harm” (Code of Ethics, 2002, p. 11). An ethics of care refers to the obligation of researchers to others (Munford, Sanders, Veitch, & Conder, 2008). Researchers must critically reflect on their obligations to others, and through this ensure connectedness in relationships, cooperation, and communication. It is important to identify before the implementation of research who will benefit from it (Munford, Sanders, Veitch, & Conder, 2008). In the case of the current study, there is potential benefit for staff through improved understanding and management of offenders. There is also potential benefit to the New Zealand public through

reducing reoffending if the DASA proves to effectively predict and help staff manage aggressive offenders.

Munford, Sanders, Veitch, and Conder (2008) identified imperative ways in which researchers must protect the interests of participants: non-maleficence (the avoidance of causing harm); beneficence (the balance of benefits against risks); and justice (the fair distribution of benefits and risks). These ethics of care lead into primary issues in research ethics: procedures to protect from harm, informed consent, and appropriate use of research data.

Risk of harm is an important ethical consideration to evaluate. The current study deals with high risk violent offenders, so the risk of harm has the potential to be high. Risk of harm can be to offenders, to staff, to the author, or to the Department of Corrections organisation. Procedures to protect from harm included the author not dealing directly with offenders (as this could have led to harm to the author, and also to offenders who may have been upset by a disruption to their routine), allowing staff to continue their job as normal and intervene if they suspected aggression was likely to occur, and ensuring all actions taken were documented so no negative backfire could come to the Department of Corrections. When the author visited prison sites to conduct interviews, appropriate and routine security measures were in place to protect her and the prisoners (for example being accompanied by staff when moving between blocks). Staff have their own departmental procedures for de-escalating situations where there may be a risk of harm, and these were employed by them, when they saw

necessary. On the occasions that risk was ongoing or severe, offenders were placed in seclusion. These incidents were documented on the DASA forms.

Informed Consent is the next issue to be addressed. Consent must be voluntary (Barrios, 2007); it cannot involve deception, and the researcher must ensure the participants are fully aware of all the implications of their involvement. The Code of Ethics for Psychologists working in Aotearoa/New Zealand speaks directly to this in the value statement on informed consent: “Psychologists recognise that obtaining informed consent from those with whom they are working is a fundamental expression of respect for the dignity of persons and peoples” (Code of Ethics, 2002, p. 8).

In the current study, individual information letters were sent to staff (see Appendix D), advising them of the research aims, what the research involved, and the implications for them. Prior to the interview, staff signed a consent form (see Appendix E) detailing that they understood what the research involved, and that they understood their rights in participating. Participant’s consent to participate in the survey was given by them sending back the survey.

Additional ethical issues around informed consent were applicable to this study, due to the use of data on offenders, but a lack of informed consent from those offenders. According to the *Official Information Act 1982* (NZ), information held by the Department of Corrections becomes official information. In this instance, the Department is the owner of information on offenders, and there is a right to request access to official information (s.12) and an obligation on agencies to provide reasonable assistance (s.13). The Department provided assistance

through giving consent; the need for informed consent from offenders is bypassed. Consent was gained from the Department of Corrections for this study through an application to their research and evaluation steering committee. Because the study was already underway through Corrections, with or without the involvement of the author, no extra cost or work was needed from the Department. The issue became one of informing the Department how the information gathered would be used. All information regarding offenders and staff was to be anonymised, and raw data was to be kept secure at Corrections sites.

Consideration should be taken around the ethics of not getting informed consent from offenders. It is possible that the DASA may have increased officer's awareness of aggression, so they may have intervened in a different manner than previously, and this could impact on offenders. In addition to staff's changed behaviour, disregarding informed consent from offenders can be disrespectful to their dignity (Code of Ethics, 2002).

However, according to the *Official Information Act 1982* (NZ), information on offenders becomes official information in a government department, so legally, consent does not have to be sought. In balancing benefits against risks, the potential benefits of a better understanding and measurement of aggression (i.e. reduced aggression in units, reduced reoffending, and potentially less aggression in the community) outweigh the risk of offenders feeling injured.

Appropriate use of research data is important so that information is not misused. Information was given for a certain purpose and it is imperative that the information is used for only that purpose. Additionally, "psychologists seek

to collect only that information which is germane to the purpose(s) for which informed consent has been obtained” (Code of Ethics Review Group, 2002, p. 6). This ensures the promotion of participant’s well-being through valuing their autonomy and upholding the agreement. Information was gathered for the purpose of understanding aggression and understanding the DASA within New Zealand prison populations, and it was for these purposes that it was used. An additional purpose was for the creation of a report to the Department of Corrections which would outline these findings and suggest the continued use of the DASA with New Zealand offenders.

Relationships

When considering relationships in research practice, the main ethical consideration is that of power relations (Munford, Sanders, Veitch, & Conder, 2008). The relationship between the researcher and participants, and the construction of those relationships is of importance. In the current study, the Department of Corrections holds the power within their realm. However, as a student of the university, the author holds power outside of the department. In both instances, corrections staff are in a lower position. This needs to be considered when interacting with staff, as they may act in ways desirable to the Department of Corrections, so as to ensure their job safety. Additionally, they may give consent to participate, but because of the power relationship not feel like they really have a choice in the matter. The positioning of participants and researcher must be carefully considered in the research relationship (Munford, Sanders, Veitch, & Conder, 2008).

Another significant challenge is to ensure respect for autonomy of participants (Barrios, 2007). Researchers are obligated to respect the decision-making capacities of individuals (Munford, Sanders, Veitch, & Conder, 2008). Thus, for this study, staff's expertise around dealing with aggressive offenders was not questioned, and their decisions on what to do were respected. An attempt was made to guide relationships with all staff and others involved in the research by principles of respect, reciprocity and mutual benefit. Care was taken to avoid placing unreasonable demands on participants' time. Reciprocity and mutual benefit can hopefully be found in the benefit this research has for staff managing aggressive offenders, making their job easier through better identification of risk for aggression.

Freedom to withdraw is an important aspect of respecting the autonomy of participants. Staff were made aware of this right before participating, and this was outlined in the letter given to them (see Appendix D). If staff decided after they had participated that they no longer wanted information on them included in the thesis, they merely had to let the author know, and that information would be excluded. The same is true for the Department of Corrections, who held power over the author and could withdraw from the study if they felt the need, and the study would have been annulled. Despite them not being official participants, it is worth noting that offenders did not have freedom to withdraw, as they are sentenced to prison and have temporarily lost their freedom to leave.

Confidentiality is another crucial ethical consideration. According to the Code of Ethics (2002), "psychologists recognise and promote persons' and

peoples' rights to privacy. They also recognise that there is a duty to disclose to appropriate people real threats to the safety of individuals and the public".

During the initial proposal to the Department of Corrections and before interviews with staff, the author outlined and explained clearly the measures that would be taken to protect confidentiality with research participants, and the possible limits to confidentiality. Additionally, consent forms (see Appendix E) outlined the use of the information and confidentiality. Measures taken included how data was stored. No raw data left the Department building; data was anonymised and transferred onto an electronic database before it was removed. DASA paper records on prisoners are held in a secure lockable filing cabinet, and will be destroyed within three months of the trial's completion. The privacy of participants and staff members was ensured by making all who participated in the study anonymous, with no identifying information included in the thesis. It was recognised that, although unlikely, there are certain limitations to non-disclosure of personal information, and particular circumstances where there is a duty to disclose (Code of Ethics, 2002). These include if staff reveal information where non-disclosure may put another person at risk, where there is a legal requirement to disclose, and when there is an urgent need in which consent cannot be obtained.

Cultural considerations

Culture is an important aspect to consider anywhere, but particularly in Aotearoa New Zealand, where indigenous Māori have suffered much discrimination in the past. Culture shapes much of how people see and understand the world including their construction of knowledge (Munford,

Sanders, Veitch, & Conder, 2008). In the current study, culture may influence how knowledge around aggression is constructed, and also relationships within prison environments.

Ethical pluralism is a term used by Munford et.al. (2008), which emphasizes the importance of recognising that there are many complimentary sources of moral value. It encourages us to think critically about diverse discourses which may stem from diverse cultures, yet none-the-less hold important meanings for those speaking them.

Attempting to be culturally competent will ensure that research is respectful to the autonomy of peoples of other cultures. "Cultural competence is defined as a having the awareness, knowledge, and skill, necessary to perform a myriad of psychological tasks that recognises the diverse worldviews and practices of oneself and of clients from different ethnic/cultural backgrounds" (New Zealand Psychologists Board, 2011, p. 4). Of more importance is to be culturally safe, and to seek ways in which research can be safe towards peoples of other cultures.

"The Government affirms that Māori as tangata whenua hold a unique place in our country" (New Zealand Psychologists Board, 2011, p. 2). In terms of responsiveness to Māori, it is noted that a high number of offenders involved in the research were Māori. In 2004, 73 to 83% of high-risk offenders were found to be of Māori decent, while only four percent were of Pacific Island decent (Wilson, 2004).The majority of high-risk Māori offenders indicated that they had a good understanding of their cultural identity and marae protocols, with 69% indicating

they had support from iwi or hapu, while 52% indicated only limited knowledge of Te Reo.

The majority of custodial staff in this study were also Māori. Consequently, consultation was sought prior to undertaking the research regarding the impacts this research project may have on Māori and peoples of other cultures, including power relationships, and special note was taken where cultural factors could have influenced the data.

Implications for Māori are considered as part of the research. As the project is evaluating the effectiveness of the DASA, this includes its effectiveness with Māori offenders. There is, as of yet, no test norms developed in any New Zealand sample, let alone Māori. Results of the research can be used to guide practice regarding whether or not this assessment is appropriate for use with Māori, and what possible steps can be taken to make it appropriate for Māori.

Chapter Four: Results

This chapter describes the results of the study in relation to each of the two hypotheses outlined in the introduction. Data screening and correction methods are discussed first, followed by a description of the offender sample. DASA ratings and aggressive incidents are compared across the populations. Following this, the results of correlational and survival analyses are presented as well as the main findings from the staff survey and interviews.

Data Screening

It is crucial that the data set is checked for errors before analysis begins (Pallant, 2007). These errors include factors that can affect data comparisons between samples, such as different sample sizes, or having a different quantity of data for each participant. This will ensure reliability of the data. The reliability of data forms the basis for claiming that phenomena exist, so it is often important to perform statistical analyses for data reduction purposes (Vertue & Haig, 2008). However, in the present study, due to the small sample size, data screening was only brief so as to not decrease the sample excessively.

Quantitative data was screened for data on offenders that was incomplete. Five offenders at Paremoremo Prison's Maximum Security had only 70 days' worth of data; less than all other units. Auckland Women's Prison had data on seven offenders for between 16 and 110 days. Tai Aroha had data on 10 residents for between seven and 98 days. Waikeria Prison had data on seven offenders for between 18 and 76 days. Thus it became clear that the data required "cleaning" (Pallant, 2007) so as to make it comparable across units.

Individuals were excluded from the analysis if there was insufficient data available (i.e. less than 70 days). For any offenders who had over 90 days of data, only the first 90 days were included in the analysis. This created a data set of offenders with data ranging from 70 to 90 days. A longer cut-off was given for those with more data so as to add robustness to the analysis, without creating too much variability and reducing validity. The original proposal had set out to acquire at least 3 months' worth of data from each site, which is equivalent to 90 days, yet neither Paremoremo Prison's Maximum Security nor Waikeria Prison had achieved this. Excluding two units from data analysis would mean the loss of valuable comparisons. Conversely, not including data that had been collected for Auckland Women's Prison and Tai Aroha would decrease the strength of the analysis for those units, where a better picture of aggression was available. Eleven offenders were excluded from the analysis because insufficient data was available, so the screening reduced the sample to N=19 offenders for data analysis, with six from Tai Aroha, five each from Paremoremo Prison's Maximum Security and Auckland Women's Prison, and four from Waikeria Prison.

Offenders were 14 men and five women aged 20 to 40 years (men: $M = 30.8$, $SD = 5.97$; women: $M = 25.2$, $SD = 2.79$). Thirteen (68%) were of Māori ethnicity, and three (16%) each were of Pākehā and Pacific peoples ethnicities. Seventeen (90%) were gang affiliated, with five (26%) Black Power and four (21%) Mongrel Mob. Nine (47%) were sentenced for violent offences and seven (37%) had multiple index offences. The RoC*RoI scores for offenders in this study ranged from 0.5752 to 0.8272 ($M = 0.6217$, $SD = 0.1566$).

A comparison to New Zealand overall prison statistics is warranted. Data from December 2014 show that the most common age range of prisoners is between 25 and 29 years, with 17.5% of all prisoners falling into this range. The next most common age range is 20-24 (15%), and the mean age is older, at $M=34.9$ years (Department of Corrections, 2015). 50.8% of all prisoners are of Māori ethnicity, 33.2% are Pākehā, and 11.3% are Pacific peoples (Department of Corrections, 2015). Violence is the most common most serious offence, with 37.9% of prisoners committing a violent offence. This was followed by sexual offences (26%) and dishonesty (16%) (Department of Corrections, 2015). Roc*RoI scores were only available to compare from two specific samples - a group of high risk offenders (Wilson, 2004), and a group of young offenders (Wilson & Rolleston, 2004). Offenders are classified as high-risk within Corrections if their RoC*RoI is 0.70 or above (Wilson, 2004). Young offenders in Wilson and Rolleston's (2004) sample had RoC*RoIs ranging from 0.09 to 0.89, with a mean of 0.58.

Thus, in comparison to the national averages, the current sample was somewhat representative in terms of age, although slightly younger than the mean. Ethnicity was also somewhat representative, with a higher number of Māori compared to overall offenders, but less Māori when comparing to high-risk offenders (Wilson, 2004). There were less Pākehā than the national average, and more offenders of Pasific origins. Because of sampling difficulties, the Roc*RoI could not be compared to a national average. However, the mean was greater than that of a group of young offenders, but smaller than those classified as high-risk offenders.

Table 4

Prisoner demographics by unit compared to the national average

	Paremoremo Prison	Tai Aroha	Auckland Women's Prison	Waikeria Prison	National average
<i>N</i>	5	6	5	3	8641*
Mean Age	29.0	32.2	25.2	31.0	34.9*
Mean RoC*RoI	.6953	.7144	.4787	.5516	.5800**
Ethnicity	Māori (60%) Pacifica (40%)	Māori (50%)	Māori (80%)	Māori (100%)	Māori (50.8%)
		Pākehā (33.3%) Pacifica (16.7%)	Pākehā (20%)		Pākehā (33.2%) Pacifica (11.3%)*
Gang status	Member (40%) Affiliate (60%)	Member (50%)	Affiliate (100%)	Member (33.3%) Affiliate (66.7%)	Member (11.5%)*
		Affiliate (16.7%) None (33.3%)			
Index offence	Violence (100%)	Violence (100%)	Violence (60%)	Violence (66.7%) Sexual (33.3%)	Violence (37.9%) Sexual (25.6%) Dishonesty (16.4%)*
				Property (40%)	

*Department of Corrections. (2015)

**National average for RoC*RoI was taken from a sample of youth offenders so is not an accurate portrayal of the national offender population.

***Department of Corrections (2003)

Table 4 presents a comparison of the demographics of the offenders across the four units. Tai Aroha had the highest mean age (32.2) and highest mean RoC*RoI (.7144); Auckland Women's Prison had the lowest mean age (25.2) and lowest mean RoC*RoI (.4787); in all units Māori were the majority; all offenders except two from Tai Aroha were gang affiliated or gang members; and

the most common most serious index offence was violence with two property offenders (Auckland Women's Prison) and one sexual offender (Waikeria Prison).

Upon selection of an appropriate data set, data was entered into SPSS. The descriptive statistic function was used to check for input errors (Pallant, 2007). This is achieved by identifying data that exceed the minimum or maximum for each variable. Some data were noted to differ significantly from other data, but because of the small sample size it was possible to go back to the raw data and ensure it was correct. No data entry errors were identified.

Data screening for survey results also took place to ensure there were no invalid or incomplete responses. This can result from staff members beginning a survey but not completing it. There were a total of 26 responses to the email survey to staff. Only two of these were incomplete, so were excluded from analysis, leaving 24 completed surveys to be analysed.

Normality of data

It is important to assess for normality, as many statistical techniques assume that the distribution of scores on the dependent variable is normal. However, aggression is a low occurrence behaviour (Quinsey, Harris, Rice, & Cormier, 1998), so it is to be expected that the data will be positively skewed (i.e. higher frequencies of low scores).

The Kolmogorov-Smirnov statistics ($p < .005$) suggest violations of the assumption of normality, as was predicted. As shown in Table 5, the number of aggressive days and the number of high risk days were positively skewed. Kurtosis, which provides information about the peakedness of the distribution,

indicates that data on aggressive days is peaked, or clustered, while data on number of high risk days is relatively flat, with more cases in the extremes. The five percent trimmed mean is obtained by removing the top and bottom five percent of cases and recalculating the mean value (Pallant, 2007). A comparison of the original mean and the trimmed mean can tell us whether extreme scores are influencing the mean. The differences shown in Table 4 are not greater than standard error (1.266 and 1.589, respectively), so extreme score are not having a strong influence on the mean.

Table 5

Sample normality

	Skewness	Kurtosis	Kolmogorov-Smirnov	Mean	5% Trimmed Mean
Aggressive Days	1.772	2.289	.267	4.16	3.56
Number of High Risk Days	.808	-.367	.325	1.579	1.532

Outliers

Outliers are cases with values well above or well below the majority of other cases. Many statistical techniques are sensitive to outliers (Pallant, 2007). In the present study, three cases were considered outliers, one of them being considered an extreme outlier (more than three box-plot lengths from the edge of the box). This can be seen in figure 1. However, since extreme scores were not having an influence on the results, and because of the small sample size, these scores were retained.

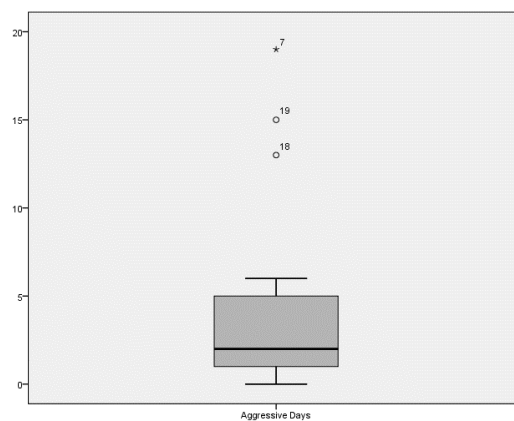


Figure 1: Boxplot assessing for outliers

DASA ratings and aggressive incidents

DASA items were calculated individually so that analyses could examine trends in the most common elevations and those most related to aggression. The seven items, outlined in table three in chapter three, are irritability, impulsivity, unwilling to follow directions, sensitive to perceived provocation, easily angered when requests are denied, negative attitudes, and verbal threats. Because of the variety in items, an offender can be rated as high risk but present quite differently to another high risk offender (i.e. be elevated on different items). Table 6 below outlines the elevations on items adjusted for the number of offenders in Waikeria Prison and Tai Aroha (Waikeria Prison had fewer offenders (3), while Tai Aroha had more (6)). This shows that, overall, offenders incarcerated at Waikeria Prison had the most elevations on all items, except items five (easily angered when requests are denied) and seven (verbal threats), items on which Auckland Women's Prison had the most elevations. The most commonly elevated item was item two (impulsivity).

Table 6

Total number of elevations on DASA items

DASA Item	Paremoremo Prison	Tai Aroha	Auckland Women's Prison	Waikeria Prison
Irritability	8	33	73	97
Impulsivity	7	46	64	121
Unwilling to follow directions	12	15	62	78
Sensitive to perceived provocation	3	39	50	72
Easily angered when requests are denied	10	25	98	93
Negative attitudes	4	21	67	103
Verbal threats	5	14	63	62

Table 7 shows the number and type of aggressive incidents across the four units and adjusted for Waikeria Prison and Tai Aroha. It shows that Waikeria Prison had the most incidents of all three types of aggression, and the most common aggression type was verbal aggression towards other people.

Table 7

Total number of aggressive incidents by aggression type

Type of aggression	Paremoremo Prison	Auckland Women's Prison	Waikeria Prison	Tai Aroha
Physical-objects	1	14	28	4
Verbal-people	3	27	83	15
Physical-people	0	21	32	3

Trajectories of aggression

There was a trend for a decrease in all seven items predicting aggression in both treatment units; Paremoremo Prison's Maximum Security and Tai Aroha (see Appendix F). This decrease was less obvious in Tai Aroha, but this was to be expected because it is a rolling programme (with residents beginning the programme at different times). The other two units (Waikeria Prison and Auckland Women's Prison) did not show this same decrease. Of interest was that the Paremoremo Prison's Maximum Security had the overall lowest scores of all units.

The following sections outline the results of the correlational analysis and survival analysis. Following that, the results are examined with relation to hypothesis one.

Correlations

Correlation is used to describe the strength and direction of the linear relationship between two variables. Correlations were taken between aggressive days, high risk days, and each individual item on the DASA.

The number of aggressive days and the number of high risk days were strongly correlated, $r(17) = .845, p < .01$. Additionally, each individual item on the DASA was strongly correlated with each other and with number of aggressive days and number of high risk days.

All correlations were found to be significant at the 0.01 level, ranging from 0.721 to 0.909 (see Table 8). The item *negative attitudes* most correlated with aggressive days, and *easily angered when requests are denied* correlated

least with aggressive days. These correlations cannot add to the predictive validity as they do not refer to same-day or consecutive day scores. However, they do highlight a relationship between elevations on all of the DASA items and Aggressive Days. Figures G13 and G14 in Appendix G demonstrate these correlations graphically.

Table 8

Pearson correlations for each DASA item and aggressive days

DASA item	Pearson correlation
Irritability	.756
Impulsivity	.899
Unwillingness to follow directions	.843
Sensitivity to perceived provocation	.770
Easily angered when requests are denied	.721
Negative attitudes	.909
Verbal threats	.732

The Kruskal-Wallis Test allows for comparison of the scores on continuous variables for two or more groups (Coakes & Ong, 2011; Pallant, 2007). Each risk group was compared to the number of aggressive days. This test showed that there was a statistically significant difference in aggressive days between the groups based on number of high risk days ($\chi^2(2) = 11.857, p = 0.003$), with a mean of 5.85 aggressive days for the few high risk days group, 14.29 for the moderate high risk days group and 15.75 for many high risk days group. However, it still cannot be said that DASA scores *predict* aggressive days, merely that there is a positive relationship between the number of high risk days and aggressive days.

The use of an ANOVA alongside the Kruskal-Wallis Test allowed for more robust results considering the small sample size. ANOVA is appropriate for comparing the means of more than two levels of an independent variable (Coakes & Ong, 2011). There was a statistically significant difference between groups based on number of aggressive days as determined by one-way ANOVA ($F(2,16) = 6.74, p = .008$). Tukey's HSD was used for post hoc comparisons, to determine between which groups the significant difference lies. The Tukey post-hoc test revealed that the number of aggressive days was statistically significantly higher for the moderate (6.86 days, $p = .032$) and many (11 days, $p = .021$) groups compared to the few group (0.9 days). There were no statistically significant differences between the moderate and many groups ($p = .471$).

Results of survival analyses

A log rank test was run to determine if there were differences in the survival distribution for the number of high risk days based on DASA scores: low, moderate, or high, and based on RoC*RoI rating. Results of the survival analyses show a significant difference in survival time based on RoC*RoI rating (figure 2) and DASA first risk rating (figure 3). In both graphs, each drop in the curve represents an occurrence of aggression. Offenders who did not become aggressive (21%) were considered censored, and are marked on the graphs as such. For the test of equality of survival distributions for the different levels of RoC*RoI, the distributions were statistically significantly different, $\chi^2(2) = 6.193, p = .045$. This means there is a significant difference in survival time for low, moderate, and high risk ratings based on RoC*RoI scores. For the test of equality

of survival distributions for the three different levels of first DASA risk rating, the distributions were statistically significantly different, $\chi^2(2) = 8.921, p = .012$. This means there is a significant difference in survival time for low, moderate, and high risk ratings based on DASA scores. This difference is greater than that based on Roc*RoI ratings.

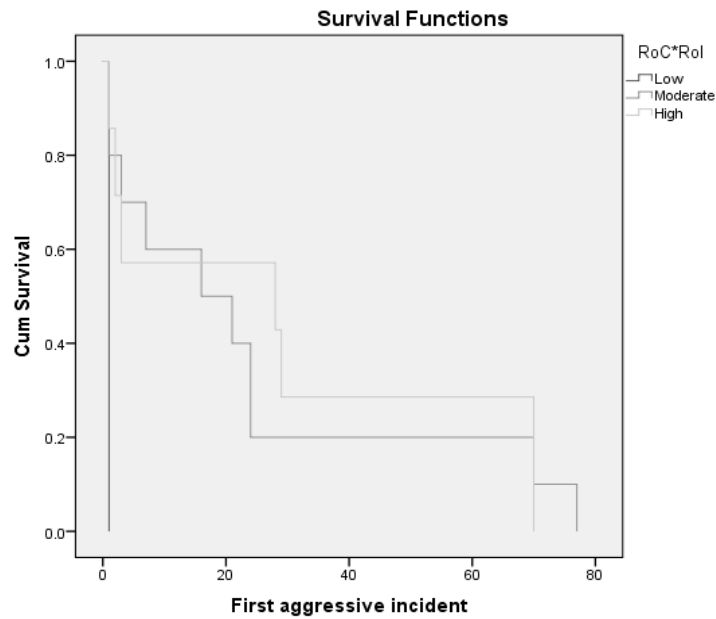


Figure 2: Survival to first aggressive act based on RoC*RoI risk categorisation

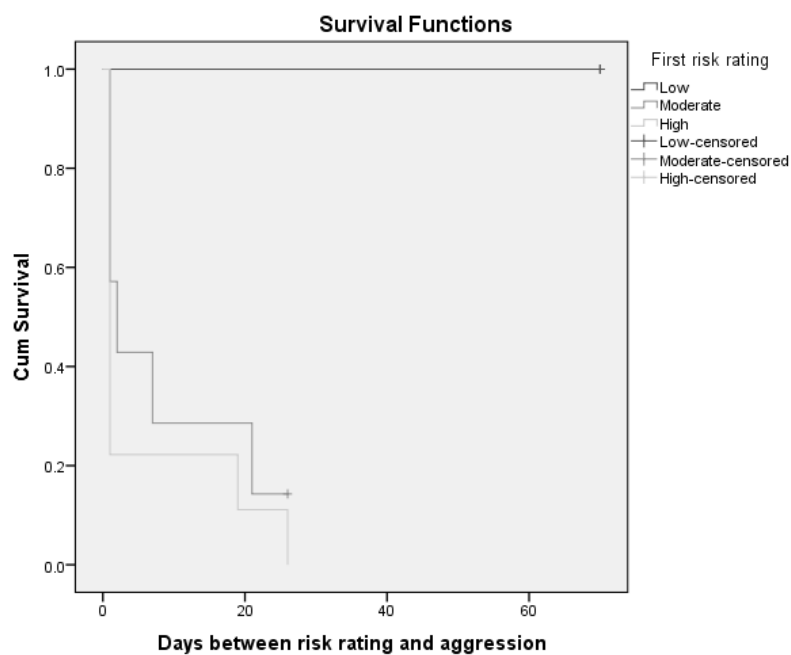


Figure 3: Survival to first aggressive act based on first risk rating on DASA

Figure 4 shows that, of the three assessed types of aggression, verbal aggression towards other people was the first to ‘fail’, while physical aggression against other people survived the longest. This supports the earlier finding that verbal aggression was the most common type of aggression.

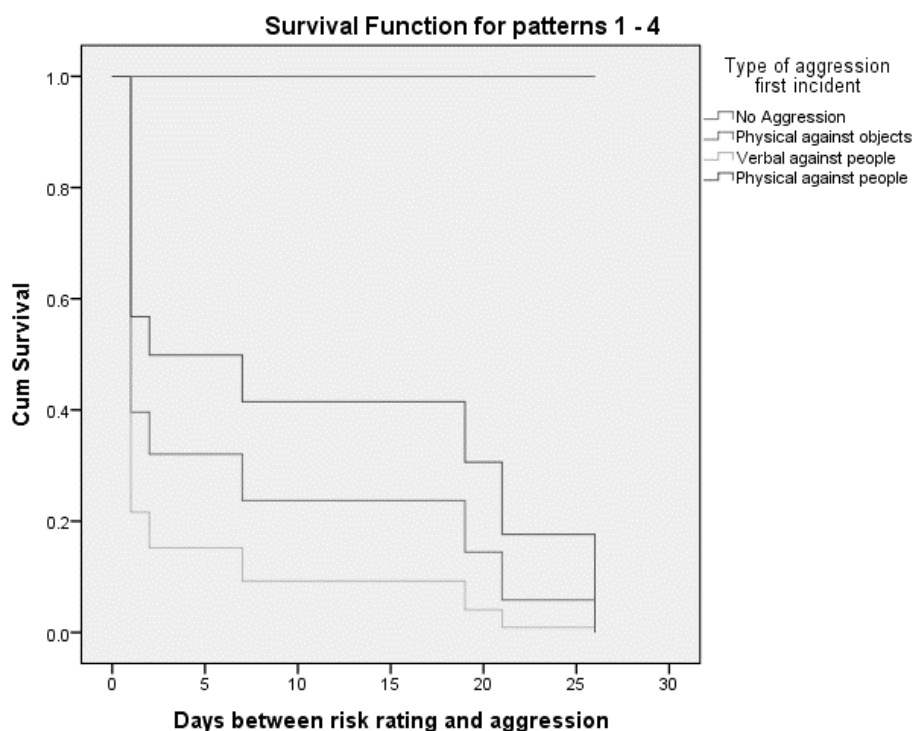


Figure 4: Survival functions for type of aggression on first incident

Testing Hypothesis One

This study aimed to evaluate the predictive validity of the DASA in its use with New Zealand offenders, under the premise that there will be improved predictive ability with higher risk ratings on the DASA. Predictive validity was deemed appropriate if there were correlations between high risk and high aggression, if predictions using the DASA were better than chance, and if predictions using the DASA were better than by utilising measures already available (i.e. RoC*RoI ratings). To test hypothesis one, correlations were

examined and survival analyses were conducted to determine the predicted rate of 'survival' based on DASA scores and RoC*RoI ratings.

There were strong correlations between the number of aggressive days and the number of high risk days and each individual item on the DASA. These results support hypothesis one, but only in identifying a relationship between these variables. A Tukey post-hoc test revealed that the number of aggressive days was statistically significantly lower for the moderate and many groups compared to the few group, suggesting that any elevation of two or higher is statistically more likely to result in aggression. To assess predictive ability, a survival analysis was carried out. The survival distributions for the number of high risk days based on DASA scores, and for the RoC*RoI risk categorisation were statistically significantly different.

Based on these results, the DASA did moderately predict aggression. Figure 3 above demonstrates a vast difference between low scores, where no aggressive incident occurred, and a smaller difference between moderate and high risk groups. This suggests that any elevation on the DASA predicts aggression, but that higher risk increases likelihood of aggression.

It is notable that survival time based on RoC*RoI score is longer than that based on DASA scores. Unfortunately, statistics could not be computed for survival estimates based on DASA scores because too many cases were censored (100% of low risk cases were censored). However, at 26 days after risk rating, all offenders rated high risk had become aggressive, compared to survival time based on RoC*RoI, where after 70 days there were still high risk cases that had not become aggressive. This can be seen in the survival tables in Appendix F.

It is interesting that the two offenders who scored as low risk based on the RoC*RoI became aggressive on the first day, and higher RoC*RoI ratings were associated with lower likelihood of becoming aggressive (see table F10 in appendix F). Survival estimates based on the median were 1 day for low risk (std. error = 0), 16 days for moderate risk (std. error = 11.068), and 28 days for high risk (std. error = 13.059).

Despite the lack of statistics for survival based on DASA ratings, an examination of the survival table (Appendix F) reveals that the cumulative proportion surviving at the time decreases fastest for the high risk group (at day one, seven cases became aggressive). This is in comparison to the low risk group, where neither of the two cases became aggressive. In the moderate group, three cases became aggressive on day one, and one case did not become aggressive at all. There is a trend for higher scorers to become aggressive quicker, and lower scorers to take longer becoming aggressive or not become aggressive at all.

Feedback from Corrections Officers

Because an aim of this study was to establish whether the DASA could successfully be used by corrections officers, it was crucial to get feedback from them. Interviews and surveys examined their perceptions of the measure's ease of use, benefits, and disadvantages, and whether they thought they influenced offender behaviour. Their responses are outlined below.

Survey Results

There was a total of 24 completed responses to the online survey included in the analysis. The only demographic taken on staff who completed the

survey was which unit they worked in. Almost half of all survey respondents were from Auckland Women’s Prison (N=11); five officers were from Paremoremo Prison’s Maximum Security; four from Waikeria Prison; and only three from Tai Aroha.

Ease of administration

Survey results revealed that, overall, staff were happy with the DASA (figure 5). Specifically, 47.8% (11) experienced administering the DASA as very easy, 13% (3) as moderately easy, none as very hard, and 4.4% as hard (the rest (8) found it neither easy nor hard).

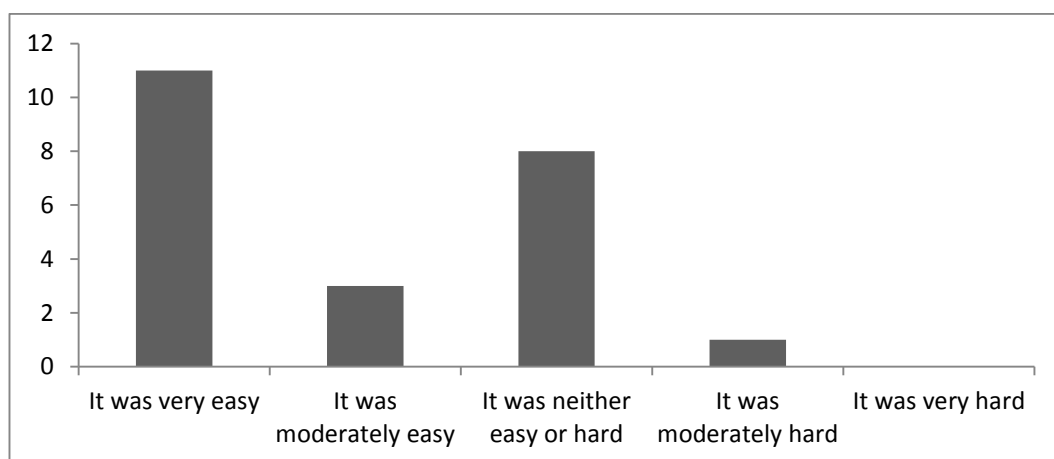


Figure 5: Results to staff survey for question on ease of use of the DASA

The survey provided example benefits based on benefits identified in the pilot study, and staff could tick as many as applied. Most staff (58%) agreed that *“there was improved transfer of information between shifts about the behaviour of prisoners in the last 24 hours”*. Half of the staff also agreed that *“it heightened my awareness of scientific behavioural signs that prisoners were at risk of becoming aggressive.”* This shows that the DASA could be useful as part of the

training for new employees starting with the Department of Corrections. This was expanded on by one staff member who said in a comment box:

“This would be ideal for new candidates starting their new role with the department as part of their training. Helping new recruits identify different behaviours.”

Many staff (42%) said that *“it leads to greater caution around managing prisoners who registered on the measure.”* Notably, one staff member wrote in the comment box:

“Identifying behavioural patterns. Also identifying what days the offender is seen to become unsettled and identifying why. Solutions and options put in place, knowing when the offender triggers the most.”

It was also important to identify what staff did not like about the DASA, so as to improve its acceptability for the future. Again, the items were based on findings from the pilot study, and the same format was used as for the question on benefits, whereby staff could tick as many as applied and could add extra disadvantages in a comment box. There were less endorsements of items than for the questions on benefits (seven being the most staff endorsing one item, compared to 15 on the benefits question). The most common complaint was that *“It does not add any information not already available”* (endorsed by seven staff, or 29%). Six staff (25%) agreed to the items *“It took up too much time”* and *“It interfered with other tasks and paperwork I have”*.

Survey comments of note include:

“I think it is very straight forward and the instructions are easy to follow”

*“I see the DASA being useful for all areas of the department ...
The DASA is useful in management of the offender so that solutions can be put in place and helping the offender to identify his issues.”*

Influence on behaviour

How staff perceived they managed offenders with elevations was examined. Figure 6 below shows that many staff (eight) did not believe they changed their behaviour when dealing with offenders with elevations, but thought that they treated all offenders the same. Seven said that they “possibly” treated offenders with elevations differently, and six said they definitely did, and that they adjust their treatment of offenders according to their risk factors.

The survey also revealed that 91.7% of staff believed it was very important to know the risk for aggression for all offenders on a daily basis, while the remainder said that knowing their static risk factors is often enough (see figure H20 in appendix H). This belief suggests that they may rely on cues based on risk for how they treat offenders.

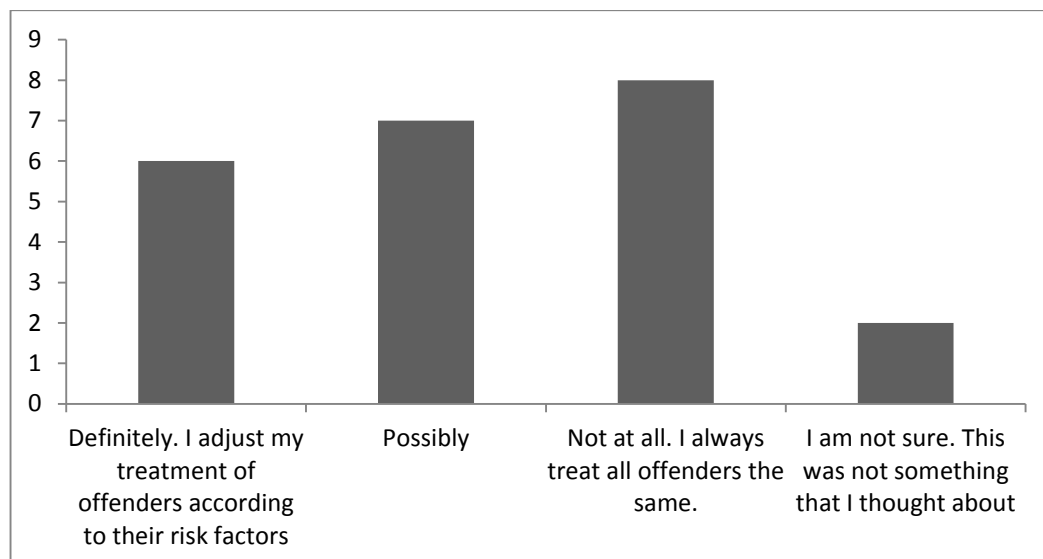


Figure 6: Results to staff survey for question on whether staff treated offenders with elevations differently

Interview Results

Ease of administration

Paremoremo Prison's Maximum Security identified improved

understanding of behavioural cues as the main benefit of the DASA. However, the PCO noted that the DASA did not adequately cover passive resistance and manipulation, factors which he believed to be vitally important in understanding offender behaviour and aggression, and he recommended an item be added to target passive resistance.

"Because it is a behaviour-based measure, it doesn't capture passive resistance and other manipulation tactics prisoners' use to get their own way ... We had several examples where this type of behaviour was displayed but it was difficult to allocate under the criteria listed on the DASA"

Auckland Women's Prison officers found the DASA easy to administer, but said that it was unclear at the beginning. They suggested adding a scale to the

scoring method (i.e. score 0, 1, 2 or 3 for items) so as to better understand the severity of the behaviour. As with Paremoro Prison's Maximum Security, they also identified understanding behaviour as an important benefit.

"Gives us an idea of their signs; a heads up if you see their moods change... It's handy to have to read what's going through their mind each day. Their behaviour changes... It's an accurate account of the behaviours of our prisoners"

Waikeria Prison officers found that the DASA improved communication between staff, and agreed that it should only be used on prisoners identified as having high management needs. However, overall, they viewed the DASA as extra work that was unnecessary. They also thought it was primarily for collecting statistics, rather than assisting in offender management. One officer stated

"It was good for stat collecting. We initially didn't use it for behaviour management. But it's another bit of paper – it got in the way in a way ... I don't know how you would get staff buy-in ... It's an extra form, and so an extra task."

They did, however, still see benefits to the measure. Primarily that it was effective to monitor the state of particular prisoners.

"It was effective for staff. Reading the sheets; they would know 'this prisoner's pretty volatile' ... the DASA is a good way of monitoring where he is at on a daily, weekly basis"

Tai Aroha staff saw many benefits of using the DASA with residents on their programme, and identified that it led to a different and improved approach to dealing with residents. It improved communication between staff, and got them focusing on relevant dynamic behaviour within a short time-frame, and on residents who were likely to become aggressive. As was found in Paremoremo Prison's Maximum Security and Auckland Women's Prison, they also saw an improved understanding of behaviour.

"I find it's a really informative tool for myself, because of that fact that it allows me that real quick glimpse of where the guys have been during the week ... It gives you a real quick insight on what sort of space they were in that day or even at the end of the week ... it's a good tool to gauge the guys... knowing where the particular whanau is on that particular day. Where his mind's at; where his behaviour's at; what's triggered that behaviour... having a good overview of where that whanau member is with regards to behaviours. Is he settled or unsettled? It gives us a wider view of what's going on for that particular resident. And how ongoing it is... I see those patterns forming, and those patterns will lead into something. And to see those patterns, you can get on top of that before that pattern leads into something serious."

Influence on behaviour

Across all four units there were differing views on whether the DASA caused staff to change their behaviour towards offenders, and whether this caused offenders to then behave differently. When answering the question “*Do you feel staff treated offenders differently when they knew there had been an elevation in the previous 24 hours?*” an officer from Waikeria Prison said

“Yea, definitely. Everyone was more on their toes and just waiting. It was good for staff and keeping their eyes open. Keeping the staff focused.”

The PCO from Paremoremo Prison’s Maximum Security also agreed that the staff change their behaviour when prisoners behave in certain ways, but he did not believe it was linked to an observation of the DASA scores. He spoke of the importance of understanding cultural relations and prisoner-staff relationships, and how rapport can be built through those understandings.

“I think it’s a relational thing; not necessarily to do with DASA scores ... Staff often don’t understand or show empathy... The prisoner’s behaviour is foreign to them ... The prisoners behave differently with different staff ... A point of note would be to identify who is on duty when the negative behaviour heightens... when a prisoner behaves in a certain way, staff’s attention becomes elevated to the behaviour.... This can have a twofold effect of either elevating the prisoner’s behaviour or de-escalation towards compliance.”

Similarly, Auckland Women's Prison officers identified a change, but did not believe it was specifically behavioural, rather a change in attitude and a wariness towards high risk offenders.

"Not differently, but wary. It's more being aware the next day after they've had a bad day. No, it didn't influence their behaviour."

There were different opinions at Tai Aroha. One staff member agreed that staff's approach to offenders with elevations was different, and that this was related to using the DASA.

"Yes. Treating them differently in the sense that their approach, staff's approach is a lot more understanding... I think it's recognising (the items), I think with them seeing that, it sort of gives them an understanding."

In a similar vein, one staff member said that the support was targeted more where it was needed, and that the DASA identified where the support was needed.

"We can focus our support more on the guy that's elevated. He might have a moderate to even higher rating. So we do go in and support that guy."

Another staff member believed it was more to do with the fact that staff "go with the moment", and that every staff member deals with things differently, no matter what the DASA says.

“No, absolutely not. When you say we treat it differently, you can’t just treat anything differently ... You go with the moment and observe or analyse the issues of the trigger before you intervene ... definitely don’t use the same strategy for each resident, coz everyone’s different. And every resident reads and sort of takes things differently than each other.”

Testing Hypothesis Two

This study aimed to evaluate the opinions of custodial staff in relation to the ease of administration, and their perception of the measure’s effectiveness within their unit. It was expected that staff would find the DASA relatively easy to administer, and they would perceive benefits from its use in their unit.

Additionally, the study aimed to evaluate the influence staff had on the occurrences of aggression in their unit. It was hypothesised that staff would influence the occurrences of aggression by implementing strategies to reduce the likelihood of aggression occurring.

Opinions of staff were deemed substantial if there were agreements between staff. To test hypothesis two, staff surveys and interviews were analysed and compared, and themes were identified, along with any significant differences or similarities.

Ease of administration

Eleven staff members surveyed found the DASA very easy to use, with eight finding it neither easy nor hard, and none finding it very hard to use. Staff also agreed that there were many benefits the DASA provided. The item staff

most agreed on as a benefit of the DASA, was *“There was improved transfer of information between shifts about the behaviour of prisoners in the last 24 hours.”*

Negative opinions were also noted, with 29% stating that it does not add any information not already available. From the interviews, the most common theme identified by staff was that the DASA assisted staff to better understand offender behaviour.

“It’s good to look at the behaviours that cause the elevations... It helps identify what sets their behaviour off. I think it’s more important to know how each prisoner behaves; what pushes their buttons, and how to influence them... It highlighted trends in prisoners’ behaviour”

Another common theme was the importance of having a good prisoner-staff relationship, identified by both Waikeria Prison and Paremoremo Prison’s Maximum Security officers.

“The guys behave differently with different staff...I don’t believe it is so much how staff treat the prisoner, I believe it is more linked to who is the staff ... If a staff member can relate, engage, and garner respect, the interaction can be moderated in a positive manner...”

The final common theme in the interviews was that using the DASA led to an improvement in communication between staff.

“We’ll just talk to one another... if you don’t have that conversation, you probably miss things ... it certainly initiates communication between staff ... and better interaction... the communication is a lot more out there in our views with what’s happening with the men”

In terms of differences between units, Waikeria Prison officers primarily used the DASA as a “stats collector”. They had not been aware that it was a tool for staff to assist them in their treatment of offenders. Thus, they found it pointless extra paperwork. Additionally, they identified that when there were issues on their unit, it was usually staff who created those issues, not offenders.

“Staff rostered into the unit often created issues. If you have a set group of people working in your wing they develop similar management strategies ... So those staff that weren’t regular on the wing had a different style of management”

The DASA is well-suited to Tai Aroha, as there are never more than 10 residents at one time, meaning it is not too much extra work to fill in. Being a treatment unit for high risk violent offenders means the initial likelihood of aggression is quite high, so there is an increased need to be able to assess and reliably predict aggression. Staff thought the DASA helped them understand resident’s behaviour, and were the only ones to identify that the DASA assisted staff to focus on relevant behaviour.

*“Staff are just more concentrated on that particular behaviour.
And when the behaviour’s gone, staff just move on, carry on with
their job”*

Auckland Women’s Prison officers found the DASA easy to administer, once they were used to it, but they found it unclear at the beginning.

*“It was easy enough. We did it at the end of each day after
lock ... I thought it was quite easy. At the beginning I was
confused ... It wasn’t made clear (that we stick to the same
prisoners) ... It was easy enough to do at the end of the day”*

The Paremoro Prison’s Maximum Security PCO was the only officer to identify passive resistance as important in the measurement of aggression. At Paremoro Prison’s Maximum Security, he was the only staff member responsible for the DASA. He felt there was more to offender behaviour and aggression than the DASA showed. In particular, he did not think it measured passive aggression, which he believed was a major part of offender aggression in his unit. He believed that the DASA could be improved with the addition of an item that assessed passive resistance.

*“It doesn’t capture passive resistance and other manipulation
tactics prisoners use to get their own way... The DASA doesn’t
pick it up, coz it’s not aggressive enough”*

Influence on behaviour

Figure 6 from the survey results section suggests that staff do not change their behaviour according to elevations on the DASA (i.e. the hypothesis is not supported). However, Tai Aroha staff identified that the DASA assisted them to take a different approach and improve their relationships with the residents.

“Staff’s approach is a lot more understanding ... This has definitely given them the tool to deal with different situations... Staff wait till they calm down, till they de-escalate... it sort of gives them an understanding that the resident is not gona listen to you, won’t hear you until he calms down... The higher the escalation, the more observant they get”

With regards to overall trends in aggression, Tables 3 and 4 in Appendix F demonstrate the effects treatment has on aggressive offenders. A decrease in DASA scores were seen in both treatment units (Paremoremo Prison’s Maximum Security and Tai Aroha). This decrease was less obvious in Tai Aroha, but this was to be expected as it is a rolling programme (with residents beginning the programme at different times). Of interest was that Paremoremo Prison’s Maximum Security, the unit with probably the most aggressive offenders, had the overall lowest scores of all four units. This can be hypothesized as being due to tighter restraints being placed on these prisoners influencing their behaviour, and the fact that good behaviour means higher likelihood of being moved out of this unit into a unit with more ‘freedom’.

If how staff manage offenders differs according to behaviour, risk, and scores such as the DASA, then staff would believe it is important to understand and be aware of behaviours associated with risk and elevated scores. Almost all staff believed it was very important to know the risk for aggression for all offenders on a daily basis, suggesting that even though staff may not explicitly acknowledge that they base their treatment of offenders on risk rating and past behaviour, their beliefs pertaining to the importance of understanding risk suggest that they do rely on cues for how they treat offenders.

Summary

The number of aggressive days and the number of high risk days were strongly correlated, $r(17) = .845, p < .01$, and the survival analysis results showed that the DASA did moderately predict aggression. There is a trend for higher scores to become aggressive quicker, and lower scores to take longer becoming aggressive or not become aggressive at all.

Many staff found the DASA very easy to use, and only four percent found it even slightly difficult. The most common benefit identified was "*There was improved transfer of information between shifts about the behaviour of prisoners in the last 24 hours*", with 63% of staff agreeing with this. The most common theme identified by staff during the interviews was that the DASA assisted staff to better understand offender behaviour.

Survey results showed a split between answers derived from the survey and those from the interview. Survey results suggested staff treat all offenders the same, so do not have an influence on offender behaviour. However,

interview transcripts and staff's answers to the question regarding the importance of knowing risk, suggest that the staff do influence the occurrences of aggression by implementing strategies to reduce the likelihood of aggression occurring.

The results presented in this chapter have provided evidence regarding each of the hypotheses. Interpretations of these results are discussed in the following chapter.

Chapter Five: Discussion

The findings of this study suggest that there is a need for acute, dynamic risk assessment for aggression amongst offenders, and that the DASA has potential to fill this niche. This is suggested by the fact that there was improved predictive ability with higher risk ratings on the DASA; most staff found the DASA easy to administer, and perceived benefits from its use in their unit; and the practical implications associated with staff's ability to change offender's behaviour by first being aware of factors related to aggression. The presence of some negative reviews by staff may suggest inadequate initial training for using the DASA, and indeed, some staff who viewed the DASA positively overall stated that they had at first found it difficult as it was unclear how and what they were supposed to be assessing. Findings in regards to the predictive ability of the DASA are discussed, and staff opinions are explored. This chapter elaborates on how staff influenced the occurrences of aggression. The two hypotheses are discussed and the findings compared to existing literature. Practical implications of this research will be discussed further and study limitations will be presented. The chapter finishes with a discussion of possible future directions for research and some concluding comments.

Hypothesis Testing

Hypothesis one

The results from the previous chapter confirm hypothesis one and highlight that the DASA predicts aggression better than chance within a 48 hour time-frame. It also adds incremental validity to a measure already used within

corrections settings, the RoC*RoI. Of note is that the RoC*RoI was not designed to measure dynamic aggression, but long term risk of reoffending. The DASA picks up on dynamic variables not measured by the RoC*RoI, which examine an offenders imminent risk. Thus, any predictive ability of the DASA is better than the RoC*RoI alone for predicting aggression in prison settings.

Notably, the Tukey post-hoc test revealed that, although the number of aggressive days was statistically significantly higher for the groups with moderate and many DASA elevations compared to the group with few elevations, there were no statistically significant differences between the moderate and many groups. This suggests that any offender who has even moderate elevations is likely to become aggressive, and it is questionable how much more a high score tells us compared to a moderate score. It appears that any score of two or above is significantly related to higher numbers of aggressive days.

Considerable risk assessment within prison settings is conducted based on professional judgement, a first generation method. Research has shown that professional judgement is flawed by bias, and is not as accurate as either actuarial or clinical methods (Andrews & Bonta, 2010). Adding the DASA to prison officer's repertoire for risk assessment shows high potential for increased accuracy in predicting, and thus preventing, aggression.

Hypothesis two

Ease of administration

The first part of hypothesis two (i.e. that staff will find the DASA relatively easy to administer, and they will perceive benefits from its use in their unit) was supported by the findings, with a few exceptions. The majority of staff who

responded to the survey found the DASA very easy to use, and agreed there were many benefits to using the measure. The benefit staff most agreed on was *“There was improved transfer of information between shifts about the behaviour of prisoners in the last 24 hours”*. There was less overall endorsement of items on the disadvantages of the DASA, but the most common complaint was that *“It does not add any information not already available”*. However, the finding that the DASA adds incremental validity to risk prediction methods already used, and the fact that professional judgement has been found in research to be flawed (Andrews & Bonta, 2010), somewhat discredits this argument. It is important to note that staff from Auckland Women’s Prison were over-represented in the survey, with nearly half of the respondents being from Auckland Women’s Prison. This skews the results towards those opinions held at Auckland Women’s Prison, and there is limited data on the opinions from the other three units.

There was less consistency in the interviews, and opinions differed slightly in each unit. Each unit utilised the DASA slightly differently, and so had slightly different opinions. The Paremoremo Prison’s Maximum Security PCO wanted an item on passive resistance, as he believed this was an integral part of aggression in his unit. This will be discussed further in the section on future directions for research.

Auckland Women’s Prison officers suggested adding a scale to the items. However, this would create more work, and potentially make it more difficult to score, thus detracting from a key benefit of the DASA in this context, its ease of scoring.

Waikeria Prison officers had not been aware that the DASA was a tool for staff to assist them in their treatment of offenders. Thus, they found it to be meaningless extra paperwork. With this in mind, it becomes clear how important it is that future unit staff are made aware of the benefits and usefulness of the tool before they begin using it, and understand the reasons why such a tool is being used.

The DASA is well-suited to Tai Aroha; there are never more than 10 residents at one time, so it is not too much extra work to fill in. Staff thought the DASA helped them understand resident's behaviour, and there was more of a focus on behaviour relevant to the current situation. Similar findings were found by Wilson and Tamatea (2010) with respect to risk scenarios, where the process was described by staff as natural, with a future focus, rather than where previously they focused on the past. This suggests that there is a need to train and assist staff in identifying the factors that are relevant to the prediction of future violence. The DASA has potential to do this.

Of note was that beliefs and attitudes towards the DASA appeared to influence the results, where staff who believed in it used it with more enthusiasm and saw the benefits more readily. Thus, there was a confirmation bias influencing staff's opinions. This can be seen in the different perceptions and perspectives of Waikeria Prison and Tai Aroha, where Waikeria Prison officers perceived the DASA as merely a "stats collector", and so with no apparent benefit to the staff. On the other hand, Tai Aroha staff perceived many benefits for them using the DASA.

Aggression and violence can have serious consequences in institutional settings, especially where staff may be unaware of these consequences. Among a psychiatric inpatient ward, Welsh, Bader, and Evans (2013) found younger staff members were at increased risk for assaults, with experience and more formal training of staff leading to less violence and aggression among patients.

Additionally, staff training in both reducing violence and staff well-being after an assault was found to reduce violent incidences. In the current results, one staff member put forward the idea of using the DASA as a training tool for staff to assist them in identifying key behaviours relating to aggression. Utilising the DASA in staff training would have many benefits, including assisting staff to know when to intervene, rather than them intervening simply based on their intuition or professional judgement.

Influence in behaviour

Findings relating to the second part of hypothesis two (i.e. that staff will influence the occurrences of aggression by implementing strategies that will reduce the likelihood of aggression occurring) were mixed. On the one hand, survey results did not support this hypothesis, with most staff agreeing that they did not change their behaviour towards offenders with elevations, but treated all offenders the same. On the other hand, survey results also indicated support through staff's endorsement of the importance of knowing offender's daily risk for aggression. Additionally, interviews revealed that even if staff did not identifiably change their behaviour, their approach to offenders was different.

Kasinathan et al. (2015) found that observing elevations on the DASA facilitated management and treatment, and changed staff behaviour, reducing

occurrences of violence. In the current study, it is likely that when there were elevations staff behaved in a way to minimise risk to themselves and to the entire unit. Given the quasi-experimental nature of this study, it would have been unethical to intervene and prevent staff from reacting to elevations.

With such dilemmas in mind, this research question required a lot of insight on the part of staff. Thus, results should be interpreted cautiously, and readers should be aware that despite saying one thing, staff may in fact do something quite different. Across all four units there were differing views on whether the DASA caused staff to change their behaviour towards offenders, and whether this caused offenders to behave differently.

The majority of staff believed it was very important to know the risk for aggression for all offenders on a daily basis, suggesting that even though staff may not explicitly acknowledge that they base their treatment of offenders on things such as risk rating and past behaviour, in fact their beliefs pertaining to the importance of knowing such risks suggest that they do rely on cues for how they treat offenders. It is therefore crucial that there are accurate measures for staff to base their judgements about offenders on (Andrews & Bonta, 2010). Use of the DASA by staff influenced scores, creating a non-ideal experiment. When staff became aware of factors relevant to the DASA and to aggression, they changed their own behaviour so that aggression was less likely to occur.

How this study relates to the literature

Aggression

A possible frustration-aggression hypothesis link could be made in regards to offender behaviour and aggression. The prison setting involves

aversive stimulation, and offenders are often frustrated with staff, who perceive things differently to them, and have expectations thwarted.

Because a common cognitive bias among offenders is the hostile attribution bias (Schonenberg & Jusyte, 2014), they may take these frustrations as intentional or as a personal attack, leading to aggressive actions, and increasing the likelihood of that person having hostile intentions in the future, despite the initial intent.

Tai Aroha staff comments supported this; they saw a change in their behaviour towards residents as a result of the insight gained into offender's behaviour, leading to less frustrated residents. This could be hypothesized as a reason (along with treatment) for the decline in aggression over the study period. It was more likely to be due to this insight rather than resident's treatment, because residents begin the program at different times (it is a rolling program), yet the decline was in general, over all offenders who were at different stages in their treatment. An argument against a frustration-aggression hypothesis is the fact that the DASA item *easily angered when requests are denied* was the least correlated with aggressive days of all items. It could be assumed, based on Berkowitz's (1989) premise that a frustration is caused by the denial of a goal, that this item is the most likely to lead to frustration of the DASA items. However, despite this, the item does have a Pearson's coefficient of .721, which is still a relatively strong correlation.

Social learning posits that unless aggressive counterattacks have been learned and have been successful, humans are not likely to attack peers after painful stimulation such as physical assaults (Bandura, 1976). Rather, when

environmental inducements to fight are not present, avoidance and flight responses take priority over attack. Taking this into account, one could presume that prisons promote an environmental inducement to fight, based on the hostility of the environment. Situational risk management posits that by managing the environment, we can reduce the likelihood of aggression occurring (Welsh, Bader, & Evans, 2013).

According to Anderson and Bushman (2002), aversive events produce negative emotions, stimulating physical responses associated with fight or flight. Fight associations lead to feelings of anger, while flight associations lead to feelings of fear, either of which can lead to aggression. Thus, cognitive neo-association theory explains hostile aggression through explanations of why aversive events increase likelihood of aggression (Anderson & Bushman, 2002). This can be helpful for prison staff in recognising why offenders become aggressive and assisting them to see that often it is a response to an aversive event.

Cross and Campbell (2011) argued that the differential investment of parents across species means females are less likely to engage in risky behaviour such as aggression that would put their offspring at risk. In the current findings, women were just as aggressive as men; overall they were the second most aggressive unit. However, this is an offender population, so cannot be compared to the general population. It is also an aggressive cohort of offenders, so cannot be compared to general offenders. It is possible that aggressive female offenders are more similar to their male counterparts with regards to aggression, compared to other females.

The same study also found that men report more acts of direct physical aggression, while women report more indirect aggression. This is difficult for the current findings to address. The DASA does not measure indirect aggression, but to make a comparison, verbal aggression could be substituted as being not direct physical aggression. However, there does not appear to be a gender difference between offenders. Verbal aggression was the most common form of aggression among women offenders; but it was also the most common form of aggression among all offenders.

Cultural theories highlight the values associated with violence among gang cultures (Tedeschi & Felson, 1994). Aggressive behaviour is positively valued, and behaviours such as fighting for the honour of one's gang are highly respected, leading to more aggression (Bandura, 1976). The majority of offenders in this study are at least gang affiliated, supporting Bandura's social learning theory and subcultural influences on aggressive behaviour.

De Vries Robbe, de Vogel, Douglas, and Nijman (2015) discuss that it cannot be assumed that individual factors, both dynamic and static, alone predict aggression. Multiple factors influence offender's likelihood of becoming aggressive, including situational factors. In the current study, staff were trained in the DASA and this training likely sparked thoughts about aggression in general, leading to an alteration in staff's treatment of offenders. It is questionable how much this different treatment impacted on the results, but according to some staff there was a beneficial impact in which incidences of aggression decreased due to staff's treatment of offenders.

“He might have a moderate to even higher rating. So we do go in and support that guy ... So we will focus more on a guy who’s got a higher rating than guys that are low and stable”

Daffern, Mayer, and Martin (2003) argue that there is a clear influence of situational contributors to aggression. Of note in studies investigating prison settings, aggressive patients were more often admitted involuntarily, a demographic shared with most if not all prisoners. A lack of respect and poor communication between staff and patients contributed to aggression in forensic psychiatric wards (Daffern, Mayer, & Martin, 2003). Additionally, staff attributes such as limited working experience, a denying, authoritarian, and an inflexible attitude were influential. Whether these attributes were present in the staff participating in the current study is uncertain, but it is possible that prison officers may be quite authoritarian in their interactions with prisoners. Certainly it has been found that prison environments in general can be quite inflexible (Wilson & Tamatea, 2010). One staff member stated that

“Staff often don’t understand or show empathy... The prisoner’s behaviour is foreign to them”

Another said that staff’s approach was a lot more understanding since using the DASA. This indicates that previously staff had been more punitive in their approach with offenders.

No New Zealand studies could be found examining this, but Wilson and Tamatea (2010) examined the PRISM method to New Zealand prisons. Distorted views of violence and safety were found, as well as problems in leadership of

violence management, and a lack of specific or consistent training or recruitment for working in maximum security (Wilson & Tamatea, 2010). These environmental factors were seen to be influencing offender behaviour and engagement in aggression in prison settings. One prison officer in the current study identified the need to assess situational and environmental factors (in this instance staff characteristics):

“A point of note would be to identify who is on duty when the negative behaviour heightens”

Further examination of these factors was beyond the scope of the current study. However, it is interesting and important to note that environmental, as well as dynamic individual factors play key roles in offender’s likelihood of engaging in violent behaviour.

Assessments of aggression

There is a need for structured assessments to measure aggression in offenders. In comparison to clinical judgement alone, structured measures such as the DASA have been found to significantly improve the ability of staff to accurately predict aggression in different settings (De Vries Robbe, de Vogel, Douglas, & Nijman, 2015; Ogloff & Daffern, 2006).

There are currently few violence risk assessment measures appropriate for use on offenders and for short-term predictions. Among the few are the Brøset Violence Checklist (BVC), but this was developed for use in psychiatric hospitals (Chu, Daffern, & Ogloff, 2013). The Psychopathy Checklist (PCL), although primarily an assessment of psychopathy, is sometimes used for

predicting violent recidivism among offenders (Douglas, Ogloff, Grant, & Nicholls, 1999). The HCR-20 is an assessment measure often used for short-term risk assessment of violence and aggression. Because of such a broad base of items, the HCR-20 requires at least a moderate degree of clinical skill and training to complete (Douglas, Ogloff, Grant, & Nicholls, 1999).

Thus there is a gap in assessments, with each of those presented having pitfalls in the use with offenders in the short-term. The current study aimed to examine whether the DASA could fill this gap. The DASA has seven simple items, can be completed by any competent staff member who observes the offender's behaviour, was developed for assessing short-term (under 48 hour) risk for aggression. However, like the BVC, it was developed for use in psychiatric hospitals. There are two points on which the DASA stands above the BVC: it was developed in Australia, a country more similar to New Zealand culturally than Norway and the United Kingdom where the BVC was developed. Additionally, most DASA items can contribute to treatment planning and are amenable to intervention, while some BVC items are past behaviours that are not associated with states requiring intervention, for example past threats and attacks (Ogloff & Daffern, 2006).

Chu, Hoo, Daffern, and Tan (2012) have studied the DASA with a young offender population in Australia and found three items (negative attitudes, anger when requests are denied, and unwillingness to follow instructions) to more strongly predict aggression than did the other four items (Chu, Hoo, Daffern, & Tan, 2012). This is consistent with the current study, in which negative attitudes was found to be the item most highly correlated with aggressive days.

Intervention

This study did not address interventions targeting aggressive behaviour among offenders, but it is important to note that an assessment of aggression should have as its aim some intervention to reduce, or at least control, aggressive outbursts. Assessment done without such an aim would be futile and waste the precious time of prison staff. If staff know that an offender is a high risk for aggression in the next 24 hours, and there is no direct intervention targeting aggression, staff's behaviour should at least change according to the risk level. As aggression can often be reactions to treatment within the facility, education for staff about treatment and improved communication between staff and offenders may reduce aggression in those who respond angrily to demands from prison officers (Ogloff & Daffern, 2006).

Suppressing anger increases aggression through creating ongoing frustrations (Robertson, Daffern, & Bucks, 2015), so a focus on emotion regulation is preferred over anger control, which can lead to suppression of the anger emotion. For this reason, prison staff could benefit from validating offender's feelings of anger and frustration, in an effort to assist them to better understand those feelings.

Finally, interventions that focus on understanding situational risk factors and controlling the environment avoid aggression-causing stimuli (Cooke, Wozniak, & Johnstone, 2008). Interventions can include an examination of the prison environment in an effort to understand factors in that environment that are likely to lead to prisoner violence. Such factors could be altered to reduce the likelihood of violence.

With regards to the literature on intervention, the PRISM model was identified as good at assessing dynamic, situational, and environmental factors, but was also very time consuming to administer (Wilson & Tamatea, 2010). This research uncovered a great number of situational variables influencing institutional violence, such as distorted views of violence and safety within prison environments, problems in leadership on violence management, and a lack of specific training for working in maximum security. With this vast range of influencing factors, it could be argued that prison staff will disregard these simply because there are too many, it is too overwhelming, and they cannot deal with all of them at once. Thus, it is not only important for assessments to identify influences for aggression among offenders, it is also important that those influences are targetable, treatable, and manageable.

Practical Implications

The DASA appears to be easily taught within a group format and is quickly understood in a peer-supported environment of staff with prior experience of the measure. However, it is important to ensure training is optimal and staff are clear on the reasons they are using the DASA. Implications of the training not being clear were observed in Waikeria Prison, where the DASA was perceived as a “stats collector” and not a tool that was beneficial for staff in their understanding of offender behaviour and likelihood of aggression. Additionally, Auckland Women’s Prison identified that they were not clear at first about what they should be recording, how, and when. However, they utilised the support offered and were subsequently able to continue using the DASA as was

intentioned. Thus, staff should also be made aware that further help and support is available after the initial training.

When familiar with the DASA, staff can complete it within a brief time-period on a selected group of prisoners (new prisoners or identified management concerns) as part of daily unit de-briefing. Once Auckland Women's Prison understood what, how, and when to record offender behaviour, they utilised the DASA well, scoring at a set time each day. Tai Aroha staff also had a system in place for scoring, and were able to make accurate scores that were not subject to memory biases. Thus, during training, staff should identify the most appropriate way to score within their unit, as having a systematic approach will lead to more accurate scoring and less confusion.

Although by no means a remedy for appraisals of offender aggression, elevations on the DASA were found to be associated with increases in aggression and there is support for its predictive ability. Practically, in a context such as a prison unit where the consequences of aggression can be dire, it is vital that any risk of aggression is identified. However, it should be taken into account by prison staff that risk measures such as the DASA are not 100% accurate, and they need to recognise that an elevation on the DASA does not necessarily mean an offender will become aggressive. It is also important to note that due to the assortment of items, an offender can be elevated on different items, so could be classified high risk but present in a different way to other high risk offenders.

Custodial staff reported several practical advantages of the DASA including improved communication about risk, improved awareness of the behavioural indicators of risk, and more informed management of prisoners

showing signs of concern on the measure. Even Waikeria Prison, despite not understanding that the tool was for their benefit, did see benefits in improved prisoner monitoring.

Improved knowledge and structured awareness of individual risk appeared to be the fundamental advantage of the introduction of the measure for Corrections staff. The harm caused by potential false positives is limited, and outweighed by the benefits of correct positive ratings. Additionally, high risk ratings lead to increased attention and constant risk appraisal (Starzomski & Wilson, 2015). Thus, despite the fact that the DASA may over-predict aggression, the benefits to staff in relation to improved communication and better understandings means that, with a clear understanding of the drawbacks of the DASA, there is strong support for the DASA to be used in prison settings.

Study Limitations

Several limitations may affect the generalisability of the findings from the current study. These include the small sample size, the different perceptions on uses of the DASA, and the method of selection of offenders for the study.

The small sample size (N=19) limits the size of statistical effects and power (Tabachnick & Fidell, 2007). This means that, although results may show statistical significance, the probability that effects exist is limited.

Samples are measured in order to make generalisations about populations (Tabachnick & Fidell, 2007). The current study used four different units in an attempt to be able to generalise to all New Zealand offender populations. However, generalisability is difficult when a) the sample size is

small, b) all units were based in the North Island of New Zealand, and c) offenders were not randomly sampled but subjectively selected by staff as those most likely to become aggressive. This final point is particularly important. Firstly, this sampling method is highly susceptible to bias, meaning that staff opinions of certain offenders and perhaps certain characteristics about them influence their likelihood of inclusion in the study and interfered with this decision. Factors such as pre-existing knowledge about gang status or ethnicity may have influenced staff's decisions on who to include. Secondly, this sampling method is likely to lead to an over-estimation of aggression within offender populations. Thus it is important not to use the results of this study as an example of the prevalence of aggression amongst New Zealand offenders.

A further limitation is that differences in staff perceptions of items could mean that they were scoring the DASA differently. For example, Auckland Women's Prison scores were much higher on the DASA, yet the actual occurrences of aggression there were not as high as Waikeria Prison. It could be that staff are more willing to score offenders as high at Auckland Women's Prison compared to Waikeria Prison. This highlights the subjective nature in scoring the DASA, despite it being relatively objective in measuring observable behaviour.

How staff perceived and used the DASA also influenced the results. Waikeria Prison officers primarily used the DASA as a "stats collector". They had not been aware that it was a tool for staff to assist them in their treatment of offenders. Thus, they found it pointless extra paperwork. Future unit staff need

to be made aware of the benefits and usefulness of the tool before they begin using it.

A final limitation of this study was in relation to the survey. Firstly, almost half of the sample of survey respondents were from Auckland Women's Prison. Thus, the survey results were skewed towards the opinions of Auckland Women's Prison officers. Secondly, the survey failed to adequately address the second part of hypothesis two, and findings had to be inferred from responses to other questions and through connections with interview responses. Further research should examine staff's subsequent offender management when using risk assessments such as the DASA. Additional future directions for research are addressed in the next section.

Future Directions for Research

Four specific directions for future research are recommended. These are an examination of how the DASA can contribute to treatment planning and how effective that treatment is; whether the addition of an item targeting indirect aggression would add to the utility of the DASA; a specific study assessing the utility of the DASA with offenders of different demographic groups, and an examination of reasons why differences occur with regards to instances of aggression in maximum security prison units compared to lower security units.

Results indicated that the DASA appears well suited for the continuous assessment of risk for imminent aggression, and it was designed to contribute to treatment planning. However, interventions derived from the DASA have not yet been evaluated (Ogloff & Daffern, 2006). This is a possible area for future

research, and something the current study was unable to address. Future research questions could ask how well the DASA contributes to treatment planning, and how effective that treatment is. For example, treatment targets could be identified using the DASA and items typically elevated for a particular offender. Further research could address whether treatment addressing those targets had been effective. Additionally, few studies have explored the relationship between changes in dynamic risk factors and treatment progress or reductions in violence risk (de Vries Robbe, de Vogel, Douglas, & Nijman, 2015). Future studies could examine in more depth elevations on the DASA over time and whether changes to these elevations have any impact on treatment progress or violence risk, or vice versa.

A second suggestion is the possible inclusion of indirect aggression in the DASA. With relation to defining aggression, Johnson, Nelson, Ghee, and Deardoff (2013) distinguished between three types of aggression: direct physical, direct verbal, and indirect or social aggression. The DASA captures physical aggression well, in the forms of physical aggression against objects and physical aggression against other people, and verbal aggression through verbal aggression against other people. The Paremoro Prison's Maximum Security PCO argued that the DASA does not capture indirect or social aggression, and he wanted an item on passive resistance, believing this was an integral part of aggression in his unit. However, an additional item on passive aggression would lead to extra work to score, a crucial factor for prison officers who are usually pressed for time. Alternatively, such an item could replace a current item, but a factor analysis would need to be conducted to ensure the subsequent items were the best to

assess aggression. An analysis by Ogloff and Daffern (2006) found that the current seven items were maximally effective at identifying risk of engaging in violence in under 48 hours. It could be argued that the item *Unwillingness to Follow Directions* somewhat covers passive aggression as it is indirect resistance to the demands of others, but this would require further investigation. Only one staff member identified this as an issue in the current study. However, it would be useful to follow up in future research whether the addition of an item capturing indirect aggression specifically would increase the utility of the DASA.

A further suggestion involves questioning whether an alternate form of the DASA should be used with different demographic groups such as youth, Māori and women. Of note is that a youth version has already been created in Australia (Kasinathan et al., 2015). This youth version contains youth-specific items and was found to significantly predict any imminent aggression, with greater predictability than the original DASA in young offenders hospitalised with a mental illness (Kasinathan et al., 2015). There was not a youth group in the current study, but had there been, it may have been appropriate to utilise this measure in that instance. Similar studies to this could be undertaken for specific populations within New Zealand offenders, such as Māori or Pacifica offenders, or female offenders, whereby the most predictive items could be included in an instrument specifically targeted towards a particular group.

Finally, in contrast to the current findings where less violence occurred in the maximum security unit (see Appendix F), Wilson and Tamatea (2010) found that the majority of violent incidences occurred in maximum security units. However, they did find that there were also periods where no incidents of

violence were recorded. Possible reasons for the current finding are that Auckland Paremoro Prison's Maximum Security placed tighter external restraints on prisoners, and that the prisoner's involvement in a therapeutic programme was addressing their aggressive behaviour. The differences found from Wilson and Tamatea (2010) is an area that could be explored further in an effort to unpack why this difference occurred.

Final Conclusions

This research proposes that there is a need for dynamic, situational risk assessment for aggression amongst New Zealand offenders and that the DASA has potential to fill this niche. Despite the small sample size, the DASA did appear to predict aggression. However, it was likely that this prediction was moderated by the fact that custodial staff changed their behaviour in order to prevent aggression occurring when they saw an elevation. This is the nature of quasi-experimental research, where it would be unethical to not act and prevent aggression, yet by acting, the staff have spoiled the results and we cannot know for certain how well the DASA predicts aggression.

Research shows that staff assessing aggression in institutional settings should use structured assessment measures to aid professional judgement (Andrews & Bonta, 2010). However many staff did not think the DASA added value to their professional judgements. Additionally, negative reviews by some staff suggest there may have been inadequate preliminary training for using the DASA, and some staff who regarded the DASA positively overall stated that it had at first been difficult as it was unclear how and what they were assessing. These

points highlight the importance of staff training in teaching them the significance of such measures and assisting them in becoming aware of the added benefits in terms of increased accuracy in predictive ability.

This study aimed to follow clinical best practice by examining the current literature on dynamic aggression and ensuring use of the DASA is empirical. The research makes a contribution to the Department of Corrections in their everyday dealings with potentially violent offenders, and it also contributes to the field of correctional psychology. No prior research on the measurement of dynamic aggression among New Zealand offenders was identified. Consequently, new knowledge and ideas are divulged for professionals and other staff who may be exposed to such aggression in their work.

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Appendices

Appendix A. Interview Questions

1. What were your experiences of administering the DASA – *was it hard, easy; what was hard or easy about it? How clear was it to staff how to use the measure?*
2. In your opinion, what are the strengths of the DASA? *What are the benefits of the DASA for your staff?*
3. In your opinion, what are the weaknesses of the DASA? *If you experienced them, how did you manage any problems relating to the DASA?*
4. Who do you think the DASA should be used with? *(i.e. should it be used with all prisoners, or a selected few?) Why do you think this?*
5. How do you think that administering the assessment fits in with the other tasks your staff have? *Does it interfere in any way? What made it possible for staff to honestly administer the assessment as planned?*
6. What made the assessment applicable to your unit? *What made the DASA an effective/ineffective measure to use in your unit? What problems, if any, can you think of in the applicability to your unit?*
7. Have you experienced any cultural issues relating to administering the assessment in your unit? *For example, have scores been elevated where you think cultural factors may have influenced them? Explain.*
8. Do you feel staff treated offenders differently when they knew there had been an elevation in the previous 24 hours? *How? If so, how do you think this may have influenced the offender's behaviour?*

9. What would you change about the DASA to improve its' effectiveness?

What recommendations do you have for if the measure was to be implemented broadly across prisons? Given the choice, would you continue to use the DASA?

10. From your experience with the measure, how well did the DASA predict

whether an offender was going to become aggressive in the 24 hours after scoring? *How did this help in how you dealt with that offender?*

How, if at all, did your management strategies for the offender change with elevated DASA scores?

11. (Specific to Tai Aroha and Paremoremo Prison): In what ways do you

think the addition of the DASA is beneficial for treatment? *(e.g. did it inform treatment goals, provide feedback on gains etc)? How did you use the DASA to guide and inform treatment?*

Appendix B. Survey Questions

1. What was your experience of administering the DASA?
 - It was very easy
 - It was moderately easy
 - It was neither easy or hard
 - It was moderately easy
 - It was very easy
 - Comments (write in) – what made it easy or hard?

2. What do you like most about the DASA?
 - It heightened my awareness of scientific behavioural signs that prisoners were at risk of becoming aggressive
 - It led to greater caution around managing prisoners who registered on the measure
 - There was improved transfer of information between shifts about the behaviour of prisoners in the last 24 hours
 - There was improvements in the team approach to prisoner management
 - I am now aware of more structured and robust information about risk
 - I now hold a more objective and less pejorative view of prisoners
 - I now have a greater focus on understanding the behaviour of prisoners
 - Comments (write in) – anything else?

3. What do you like least about the DASA?

- It took up too much time
- It interfered with other tasks and paperwork I have
- It does not add any information not already available
- It was difficult to restrict my focus on the offender to only the previous 24 hours
- I struggled to understand one or more of the items and apply them to offenders
- It was not appropriate to my unit for cultural reasons
- Comments (write in) – anything else?

4. In what ways did you think the DASA was useful in management of offenders?

- I didn't think it was useful in management
- It informed staff of possible management concerns or treatment goals
- It provided feedback on offender gains from treatment or other interventions
- Comments (write in) – in any other ways?

5. Did you experience any unexpected problems?

- Yes
- No
- Problems were all anticipated

6. Do you feel you may have treated offenders differently if you knew they had a DASA elevation?
- Definitely, I adjust my treatment of offenders according to their risk factors
 - Possibly
 - Not at all, I always treat all offenders the same
 - I am not sure, this was not something I thought about
7. In your opinion, how important is it to know the risk for aggression for all offenders on a daily basis?
- Extremely important
 - Quite important
 - Moderately important - knowing their static risk factors is often enough
 - Slightly important - only really important for those offenders who are a management concern
 - Not important
8. How likely are you to recommend the Department of Corrections to implement the DASA in other units?
- Extremely likely
 - Likely
 - Unsure
 - Not very likely
 - Not at all likely

- Comments (write in) – why are you likely or unlikely to recommend the DASA?

9. Overall, were you satisfied with your experience of using the DASA, or dissatisfied? (Drop down)

- Extremely satisfied
- Somewhat satisfied
- Neither satisfied or dissatisfied
- Somewhat dissatisfied
- Extremely dissatisfied

Appendix C. DASA Modified for Prison Use

DYNAMIC APPRAISAL OF SITUATIONAL AGGRESSION

PRN: _____ Prisoner Name: _____ RELEVANT DETAIL REGARDING INCIDENTS _____
 Week beginning: ____ / ____ / ____ Unit: _____

The following ratings are based on your knowledge and observations of the prisoner during the PREVIOUS 24 HOURS. Well-known prisoners are scored a 1 for an increase/escalation in the behaviour described, while the prisoner's usual behaviour while being non-violent is scored as 0.	Monday (Circle One)	Tuesday (Circle One)	Wednesday (Circle One)	Thursday (Circle One)	Friday (Circle One)	Saturday (Circle One)	Sunday (Circle One)
Irritability The prisoner is easily annoyed or angered. The prisoner is unable to tolerate the presence of others.	0 1	0 1	0 1	0 1	0 1	0 1	0 1
Impulsivity The prisoner displays behavioural and emotional instability (i.e., dramatic fluctuations in mood, or general demeanour; inability to remain composed and directed).	0 1	0 1	0 1	0 1	0 1	0 1	0 1
Unwillingness to Follow Directions The prisoner tends to become angry or aggressive when they are asked to adhere to individual management requests or to the unit's day to day operations.	0 1	0 1	0 1	0 1	0 1	0 1	0 1
Sensitivity to Perceived Provocation The prisoner tends to see other people's actions as deliberate and harmful; they may misinterpret other people's behaviour or respond with anger in a disproportionate manner to the extent of provocation.	0 1	0 1	0 1	0 1	0 1	0 1	0 1
Easily Angered When Requests are Denied The prisoner tends to be intolerant, or is easily angered when they make a request that is denied or when they are asked to wait.	0 1	0 1	0 1	0 1	0 1	0 1	0 1
Negative Attitudes The prisoner displays entrenched antisocial and negative attitudes and beliefs which may relate to violence and aggression.	0 1	0 1	0 1	0 1	0 1	0 1	0 1
Verbal Threats The prisoner displays a verbal outburst, which is more than just a raised voice, and where there is a definite intent to intimidate or threaten another person.	0 1	0 1	0 1	0 1	0 1	0 1	0 1
Total	17	17	17	17	17	17	17
Final risk rating Based on the DASA score and staff assessment rate (H) high, (M) medium or (L) low risk for the next 24 hours.							
Record of aggression. During the previous 24 hours has the prisoner behaved aggressively in any of the following ways? (Please mark with a cross in the appropriate box)							
Physical Aggression against OBJECTS. Slams door, throws objects down, kicks furniture, breaks objects, smashes windows, sets fires, throws objects.							
Verbal Aggression against OTHER PEOPLE. Shouts angrily, insults, curses viciously, uses foul language in anger, or makes clear threats of violence to others.							
Physical Aggression against OTHER PEOPLE. Makes threatening gesture, swings at people, grabs at clothes, strikes, kicks, pushes, pulls hair, or attacks others.							

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Guidelines on Scoring

A. Irritability- Easily annoyed or angered and unable to tolerate the presence of others.

0. The prisoner has been calm, patient and relaxed during previous 24 hours. They are comfortable and relaxed with other prisoners and staff.

1. The prisoner is considered easily annoyed or angered and unable to tolerate the presence of others (prisoners or staff).

B. Impulsivity - Dramatic fluctuations in mood or general demeanour. An inability to remain composed. Impulsive patients are quick to (over-) react to real and imagined slights, insults, and disappointments.

0. The prisoner has been emotionally and behaviourally stable over the previous 24 hours.

1. The prisoner has been sudden, impulsive and unpredictable in affect or behaviour in previous 24 hours.

C. Unwillingness to follow directions - Aggression often occurs following a demand, where the prisoner is motivated to avoid the demand or when annoyed by having to do something they do not want to do.

0. The prisoner is generally compliant with requests and directions.

1. The prisoner tends to become angry and/or aggressive when asked to adhere to some aspect of treatment or to unit routine or follow lawful orders.

D. Sensitive to perceived provocation - Aggression often occurs following perceived provocation. Provocation may include disrespectful treatment; unfairness/injustice; frustration/interruption; annoying traits; and irritations.

0. The prisoner does not tend to become angry, or construe other's actions as provocative. Not 'overly sensitive'.

1. The prisoner tends to see others' actions as deliberate and malicious. They commonly misinterpret other people's behaviour or respond with anger in a disproportionate manner. 'Prickly', 'overly sensitive' and quick to anger.

E. Easily angered when requests are denied - Aggression may occur following the denial of a request that has been made by the prisoner.

0. The prisoner is calm and accepting when asked to wait whilst their requests are attended to or when they are denied. They understand and accept that their request cannot be fulfilled at that time.

1. The prisoner tends to become angry when their requests are not granted immediately. They do not accept delay in gratification of requests, and they may become surly, angry or aggressive at these times. They may shout or bang on their cell door or demand to see the PCO.

F. Negative attitudes - To assess negative attitudes the assessor needs to be attentive to current attitudinal states which may relate to violence. In scoring this item it is important to determine the extent to which an individual's attitudes are pro- or anti-social. Current attitudes toward other people, social agencies and institutions and the law or other authority may be taken into account. Present attitudes toward past violence, and whether genuine sorrow and regret, is expressed, or whether the prisoner is remorselessness, callous, and lacking empathy, sadistic, homicidal, or paranoid may be considered. This item does not refer to occasional pessimism.

0. No negative attitudes

1. Definite/serious negative attitudes.

G. Verbal threats - Prisoners who have recently been verbally aggressive are more likely to be physically aggressive in the short term.

0. The prisoner not been verbally aggressive in last 24 hours.

1. The prisoner was verbally aggressive (more than just a raised voice, and with definite attempt to intimidate or threaten another person).

Interpreting the DASA - The DASA is to be used as a guide for assessing the likelihood of aggression. Assessments should not be prescriptive in terms of dictating interventions nor isolated from staff judgement.

DASA Score	Level of risk
0→1	Low
2→3	Moderate
>3	High

Appendix D. Information Letter

(Insert date)

To whom it may concern,

I am a Psychology Masters student at the University of Waikato, working alongside the Department of Corrections in Glen Kilgour's research project on the evaluation of the Dynamic Appraisal of Situational Aggression (DASA).

The DASA aims to identify risk factors and assist staff in identifying offenders' risk for aggression. It is a structured risk assessment, enabling more accurate identification of imminent violence than unstructured clinical judgement. It also utilises the combination of risk variables with the highest predictive validity, which staff can target for remediation, assisting in the prevention of aggression. Administering the assessment is relatively straightforward, involving observations of offenders and rating specific behaviours as present or absent in a 24 hour period.

It is currently unclear how responsive the DASA is in the New Zealand context, especially in relation to its use with Māori. Glen Kilgour and Nick Wilson trialled the measure in two prison units in New Zealand (SHCF Management Unit and Unit 14B Kaari 'Under 25s' unit) earlier this year, and they are currently evaluating the measure with a larger and more varied sample. They aim to provide information to the Department of Corrections on whether this tool is appropriate for use amongst specific prison populations, and if not, what can be changed to improve its efficacy.

My study works alongside this, but also examines the thoughts and opinions of prison staff using the measure. I believe it is vitally important to understand the feelings of staff regarding the DASA if the measure is to be implemented by Corrections. I wish to interview staff members currently using the DASA within their units, to understand their opinions regarding the DASA's effectiveness and responsivity to offenders in their unit, and their feelings about using it. I wish to hand out an online survey to all staff who have experienced

using the DASA over the last month, and also to personally interview a few influential staff members who can provide valuable insights.

Findings will be reported in a Master's Thesis, which will be submitted to the University of Waikato, and will become part of the public domain. However, all participants in the study will remain anonymous with no identifying information included. Your rights to privacy and confidentiality will be respected. Additionally, if at any time you wish to withdraw any information you have provided, you have the right to do this.

The interview should not take long (less than an hour, ideally). Staff will be made to feel as comfortable as possible within a safe working environment, and I will provide refreshments and snacks during the interview. Draft transcripts will be shown to those involved, so that any comments or corrections can be made.

If you could contact me to organise a time that suits to meet and discuss this, it would be greatly appreciated. I am hoping that use of this measure will be hugely beneficial to custodial staff in regards to dealing with offenders who may be at higher risk for aggressive outbursts.

Also, if you have any questions relating to the research, or if you have any concerns, feel free to contact myself, or Glen, or my supervisor Armon Tamatea:

Veronika Lang: veronikalang0@gmail.com

Glen Kilgour: glen.kilgour@corrections.govt.nz

Armon Tamatea: tamatea@waikato.ac.nz

Complaints can be directed to: Associated Professor John Perrone, phone 07 838 4466 ext. 8292, email: jpnz@waikato.ac.nz

Kind regards,

Veronika Lang, Psychology Masters Student

Appendix E. Consent Form

Consent Form



PARTICIPANT'S COPY

Research Project: Evaluation of the Dynamic Appraisal of Situational Aggression (DASA)

Name of Researcher: Veronika Lang

Name of Supervisor (if applicable): Armon Tamatea

I have received an information sheet about this research project or the researcher has explained the study to me. I have had the chance to ask any questions and discuss my participation with other people. Any questions have been answered to my satisfaction.

I agree to participate in this research project and I understand that I may withdraw at any time. If I have any concerns about this project, I may contact the convenor of the Research and Ethics Committee (Associate Professor John Perrone, Tel: 07 838 4466 ext 8292 and email: jpnz@waikato.ac.nz)

Participant's

Name: _____ Signature: _____ Date: _____

Consent Form



RESEARCHER'S COPY

Research Project: Evaluation of the Dynamic Appraisal of Situational Aggression (DASA)

Name of Researcher: Veronika Lang

Name of Supervisor (if applicable): Armon Tamatea

I have received an information sheet about this research project or the researcher has explained the study to me. I have had the chance to ask any questions and discuss my participation with other people. Any questions have been answered to my satisfaction.

I agree to participate in this research project and I understand that I may withdraw at any time. If I have any concerns about this project, I may contact the convenor of the Research and Ethics Committee.

Participant's

Name: _____ Signature: _____ Date: _____

Appendix F. Results Tables and Figures

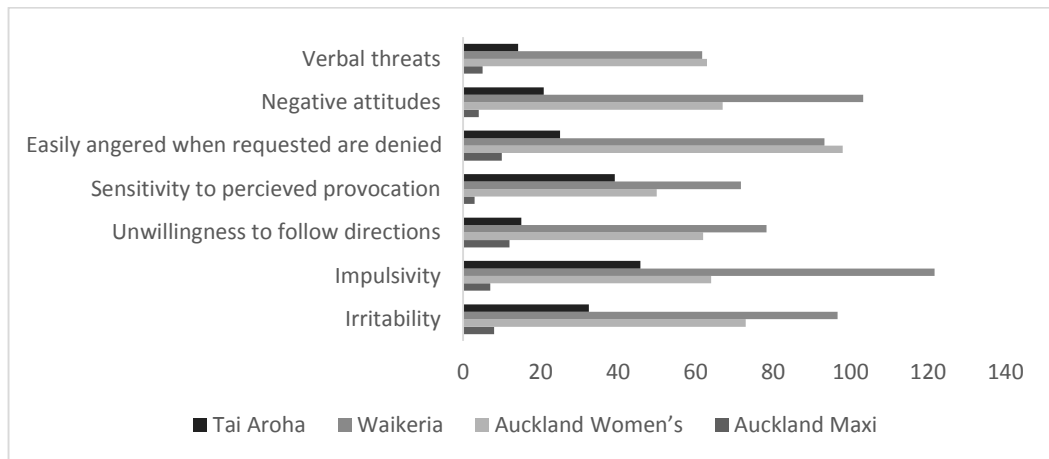


Figure F7: Total number of DASA elevations adjusted for number of offenders

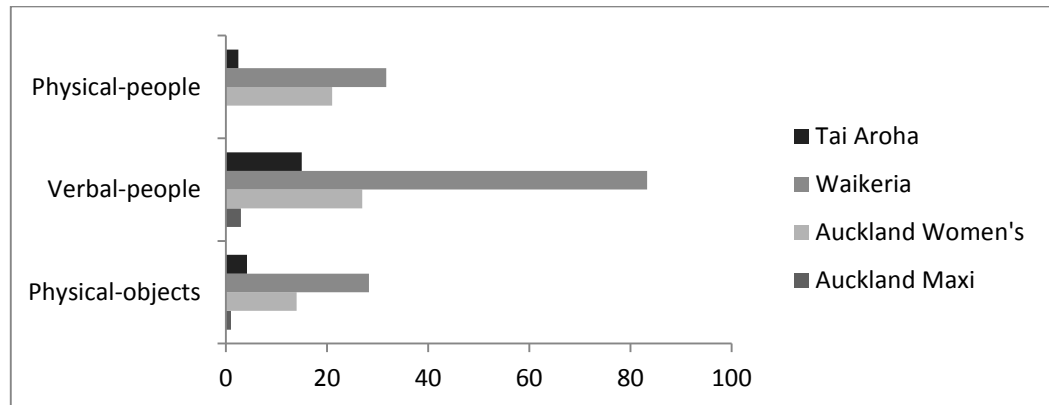


Figure F8: Total number of aggressive incidents by aggression type adjusted for number of offenders

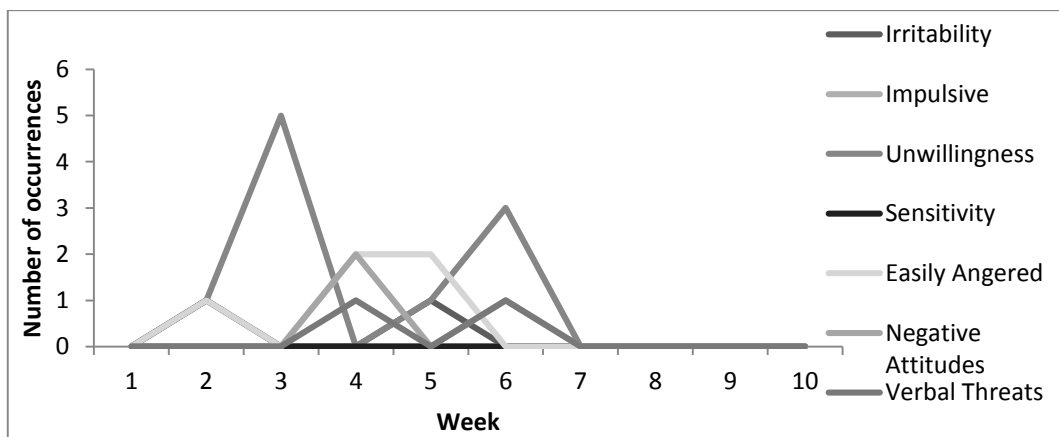


Figure F9: Trends in DASA elevations by week at Paremoremo Prison

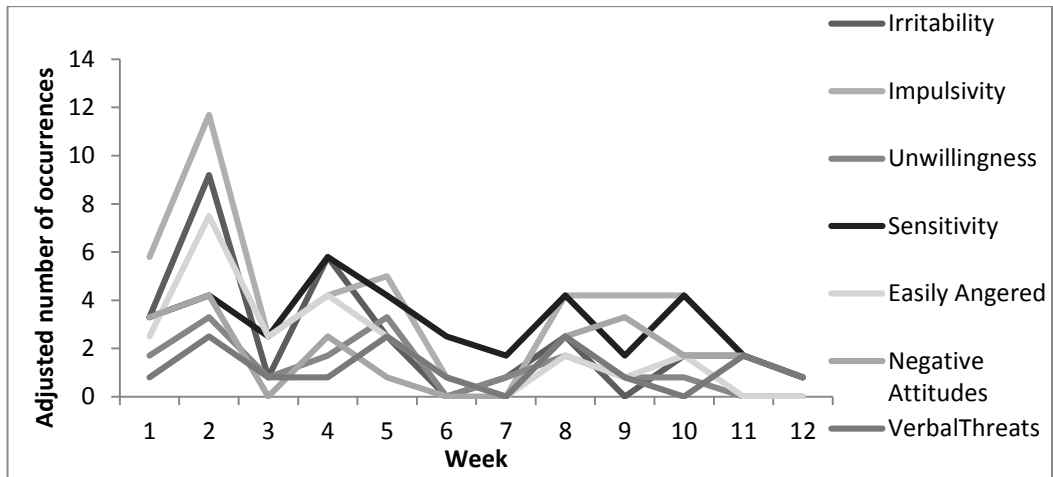


Figure F10: Trends in DASA elevations by week at Tai Aroha

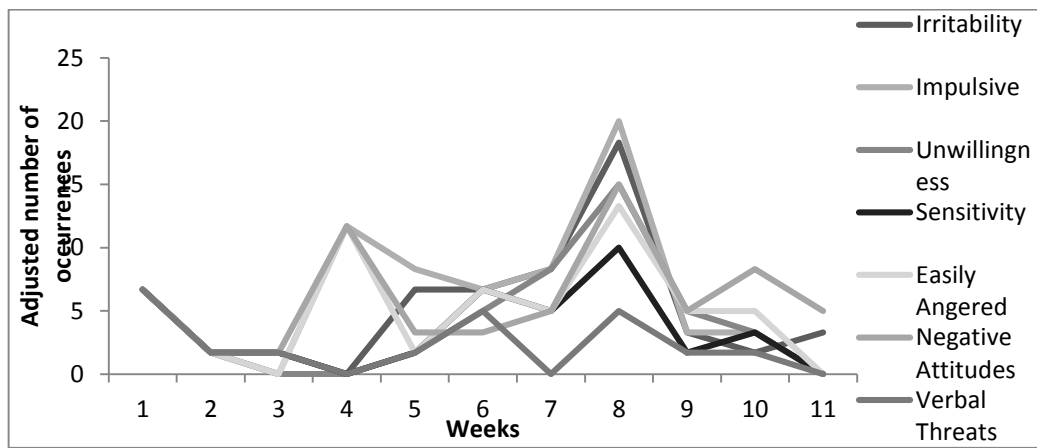


Figure F11: Trends in DASA elevations by week at Waikeria Prison

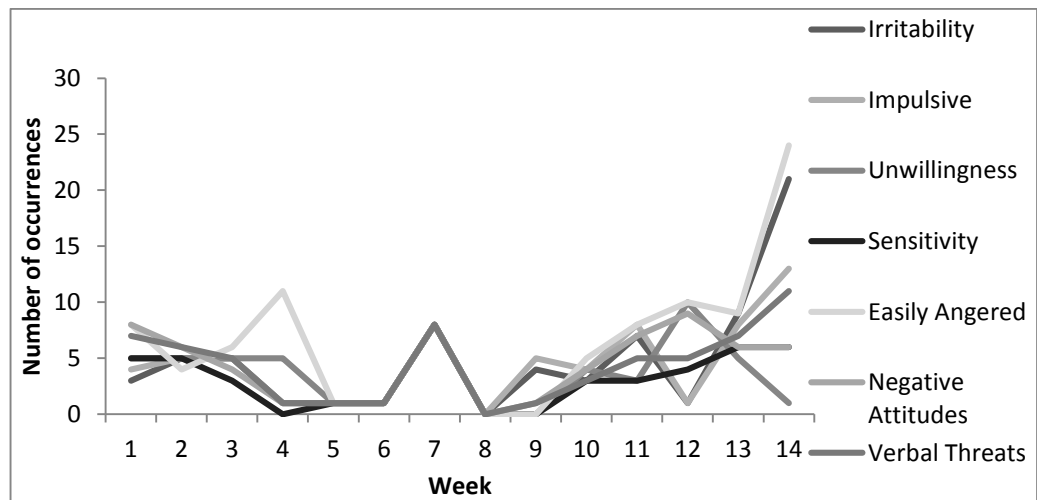


Figure F12: Trends in DASA elevations by week at Auckland Women's Prison

Table F9:

Test of equality of survival distributions for RoC*RoI ratings

	Chi-Square	df	Sig.
Log Rank (Mantel-Cox)	6.193	2	.045
Breslow (Generalized Wilcoxon)	6.096	2	.047
Tarone-Ware	6.161	2	.046

Table F10:

Survival table based on RoC*RoI rating

RoC*RoI	Days	Aggression	Cumulative Proportion Surviving		No of Cumulative Events	N of Remaining Cases
			Estimate	Std. Error		
Low	1	Yes			1	1
	1	Yes	.000	.00	2	0
Moderate	1	Yes			1	9
	1	Yes	.800	.126	2	8
	3	Yes	.700	.145	3	7
	7	Yes	.600	.155	4	6
	16	Yes	.500	.158	5	5
	21	Yes	.400	.155	6	4
	24	Yes			7	3
	24	Yes	.200	.126	8	2
High	70	No			8	1
	77	No			8	0
	1	Yes	.857	.132	1	6
	1	Yes	.714	.171	2	5
	1	Yes	.571	.187	3	4
	1	Yes	.429	.187	4	3
	1	Yes	.286	.171	5	2
1	No			5	1	
1	No			5	0	

Table F11:

Test of survival distributions for first risk rating

	Chi-Square	df	Sig.
Log Rank (Mantel-Cox)	8.921	2	.012
Breslow (Generalized Wilcoxon)	8.055	2	.018
Tarone-Ware	8.841	2	.012

Table F12:

Survival table for first risk rating

First DASA rating	Days	Aggression	Cumulative Proportion Surviving		No of Cumulative Events	N of Remaining Cases
			Estimate	Std. Error		
Low	70	No			0	2
	70	No			0	1
Moderate	1	Yes			1	6
	1	Yes			2	5
	1	Yes	.571	.187	3	4
	2	Yes	.429	.187	4	3
	7	Yes	.286	.171	5	2
	21	Yes	.143	.132	6	1
	26	No			6	0
High	1	Yes			1	8
	1	Yes			2	7
	1	Yes			3	6
	1	Yes			4	5
	1	Yes			5	4
	1	Yes			6	3
	1	Yes	.222	.139	7	2
	19	Yes	.111	.105	8	1
	26	Yes	.000	.000	9	0

Appendix G. Correlations

Table G13:

DASA item	Aggressive days	High risk days
Irritability	.756	.894
Impulsivity	.899	.911
Unwillingness to follow directions	.843	.953
Sensitivity to perceived provocation	.770	.881
Easily angered when requests are denied	.721	.917
Negative attitudes	.909	.949
Verbal threats	.732	.915

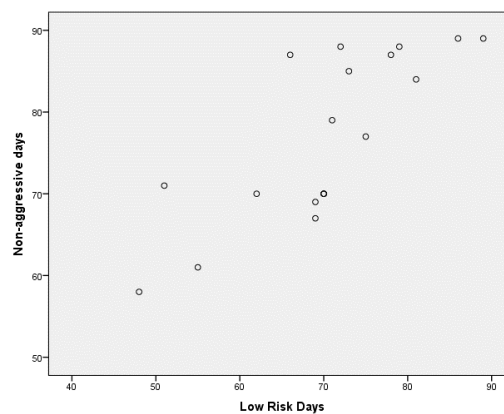


Figure G13: Correlations between low risk days and non-aggressive days

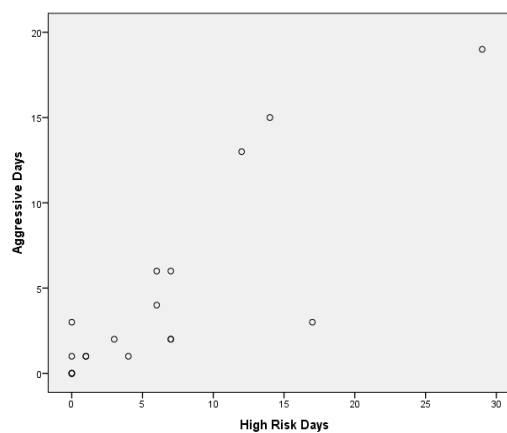


Figure G14: Correlations between high risk days and aggressive days

Appendix H. Staff Opinions

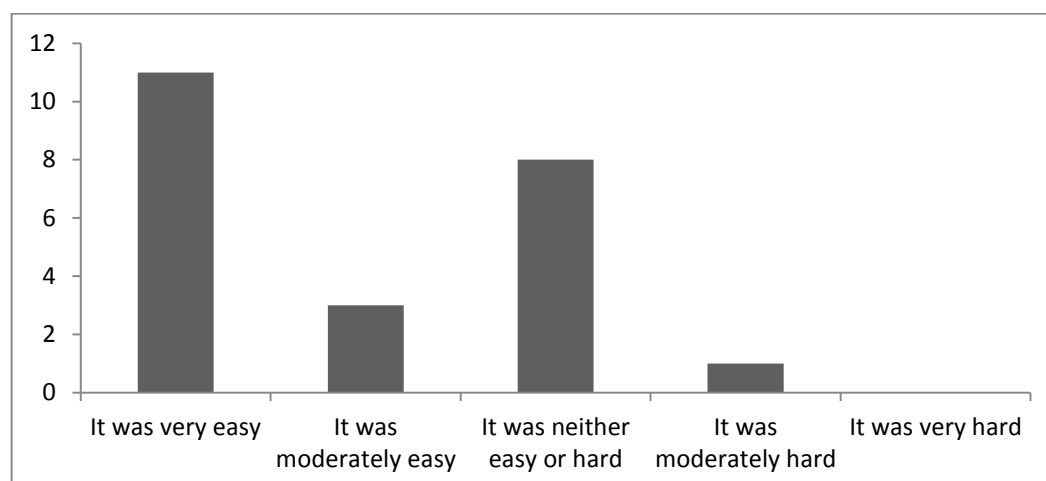


Figure H15: Staff experiences using the DASA

Table H9:

Frequency of identified benefits from staff survey

Identified benefit	Frequency
<i>It heightened my awareness of scientific behavioural signs that prisoners were at risk of becoming aggressive</i>	13
<i>It led to greater caution around managing prisoners who registered on the measure</i>	11
<i>There was improved transfer of information between shifts about the behaviour of prisoners in the last 24 hours</i>	15
<i>There was improvements in the team approach to prisoner management</i>	9
<i>I am now aware of more structured and robust information about risk</i>	7
<i>I now hold a more objective and less pejorative view of prisoners</i>	5
<i>I now have a greater focus on understanding the behaviour of prisoners</i>	9

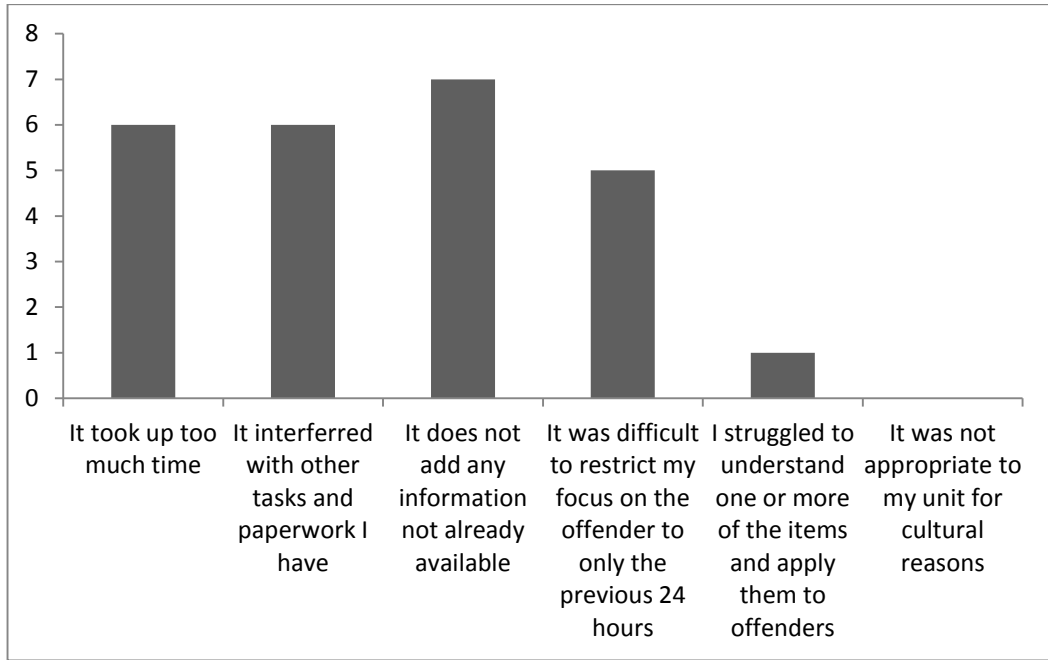


Figure H16: What staff liked least about the DASA

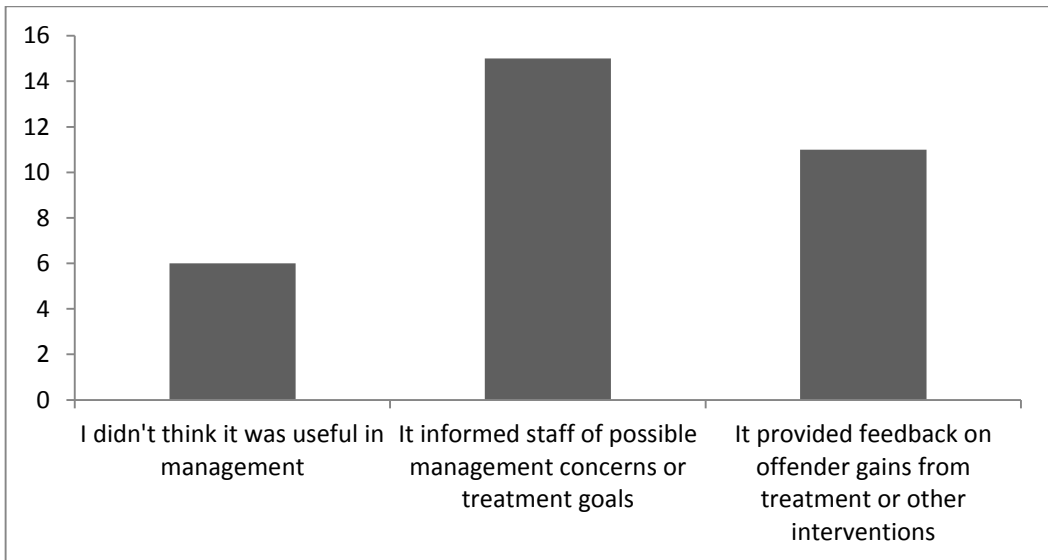


Figure H17: How the DASA was useful in management

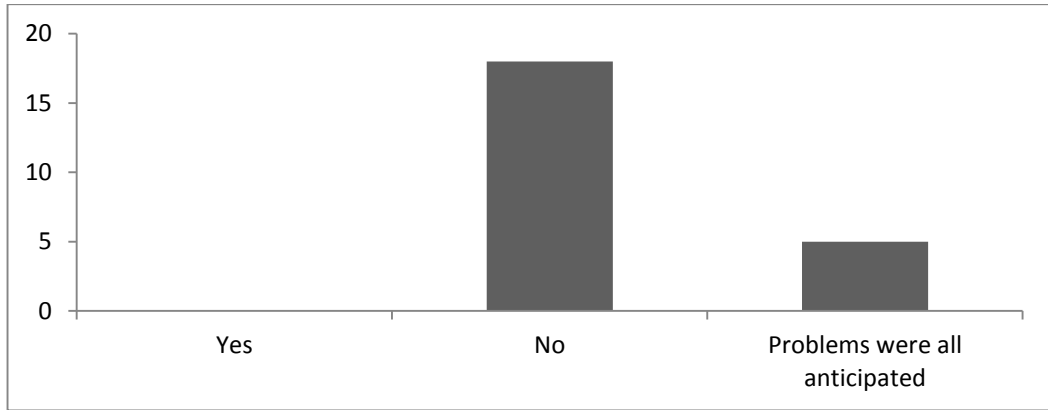


Figure H18: Whether unexpected problems were faced

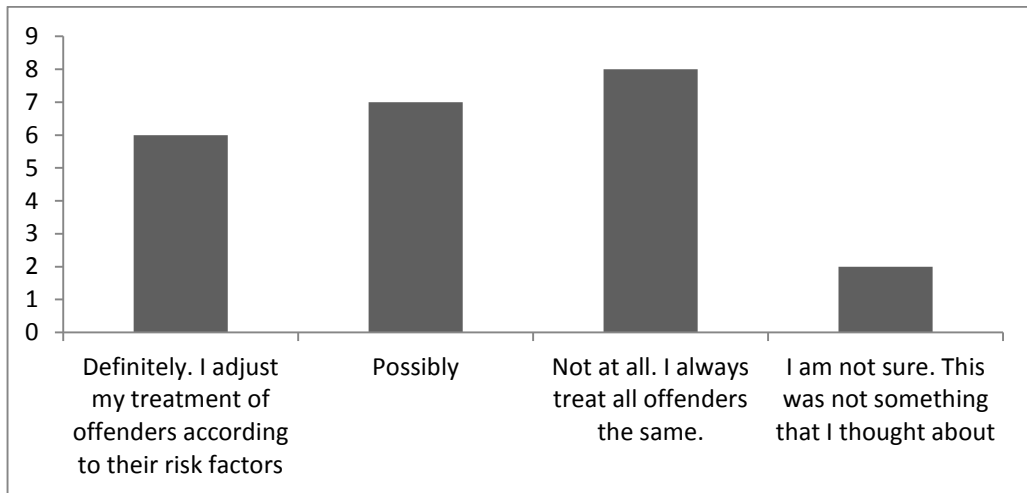


Figure H19: Did staff treat offenders with elevations differently

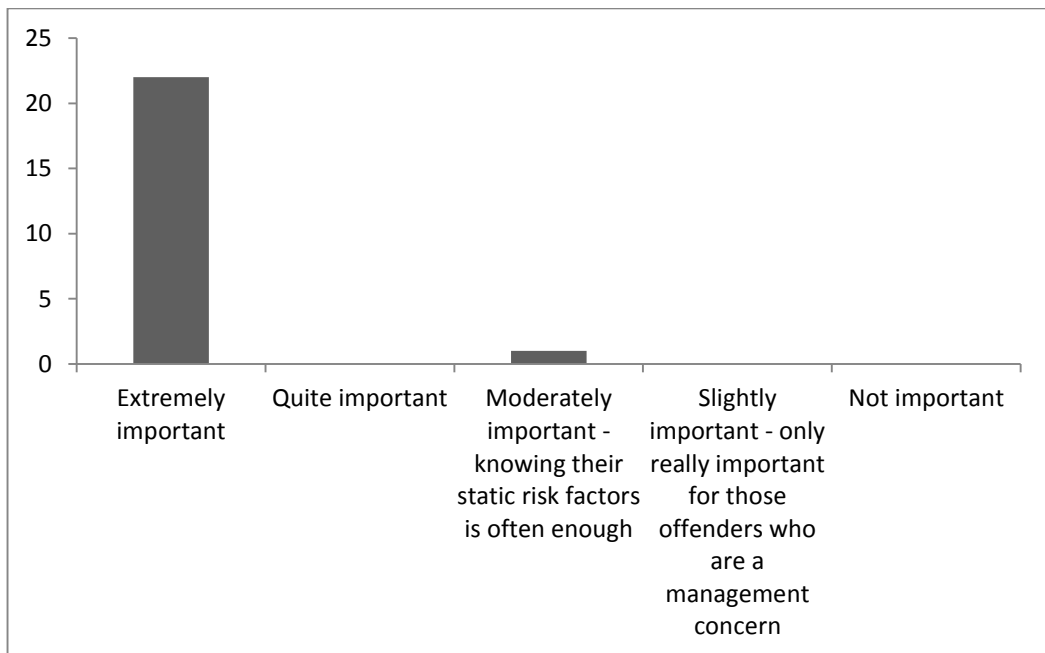


Figure H20: How important is it to know daily risk for aggression?

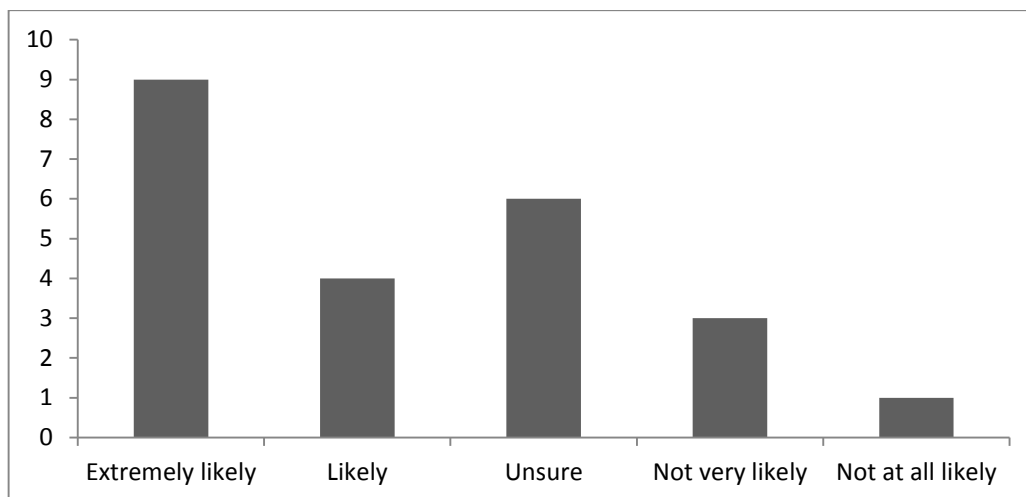


Figure H21: How likely to recommend to the Department of Corrections

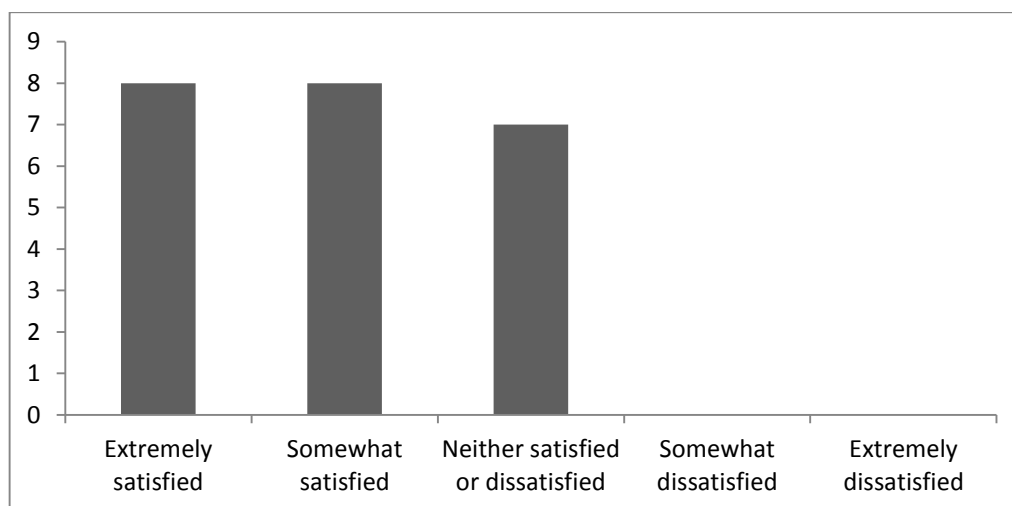


Figure 22: Overall satisfaction with the DASA

Survey comments

What was your experience of administering the DASA?

- *The options made it easy and clear to follow.*
- *This was made easy due to a staff member taking ownership for the dissemination of this tool to other staff. Also his ability to load this form onto the computer data base making this user friendly and accessible to all staff.*
- *The layout of content and clearly stating examples displayed a format of the DASA that was user friendly and easy to follow*
- *The easy part was explaining how the whole trialling process works. The hard part is making sure staff are monitoring the behaviours and recording the details of their observations!*
- *Getting the time in the unit to complete the DASA*

What did you like best about the DASA?

- *Identifying behavioural patterns. Also identifying what days the offender is seen to become unsettled and identifying why. Solutions and options put in place, knowing when the offender triggers the most.*
- *I think we already do this, however it gives it a name*
- *Not very effective*

What did you like least about the DASA?

- *I have no issues with the DASA just sometimes forget to put in the scores if there have been no issues at the completion of my shift if it's last.*
- *Too early to comment on. I preferred not to tick any boxes in this sequence but unfortunately had to, to move on with this unit.*
- *Different officers will have different management issues with certain prisoners due to the rapport they have with that prisoner.*

In what ways do you think the DASA is useful in the management of the offender?

- *I see the DASA being useful for all areas of the department. This is something that i believe schools should have for those behavioural children. Identify the risks of children who come from a family of ongoing offending as known as the ripple effort. If schools can identify this early with a child, then in future we will have less attending alternative schools and our focus for achieving to drop the offending rate by 25%. The DASA is useful in management of the offender so that solutions can be put in place and helping the offender to identify his issues.*

Did you experience any unexpected problems while using the DASA?

- *Like any new initiative it takes time for staff to except new concepts and commit precious time to completing the task.*

How likely are you to recommend the Department of Corrections to implement the DASA in other units?

- *This would be ideal for new candidates starting their new role with the department as part of their training. Helping new recruits identify different behaviours.*
- *Not sure, more simplified*

Opinions by Unit

Paremoremo Prison

Understand behaviour: *“It’s good to look at the behaviours that cause the elevations... It helps identify what sets their behaviour off. I think it’s more important to know how each prisoner behaves; what pushes their buttons, and how to influence them... It highlighted trends in prisoners’ behaviour”*

Prisoner-staff relationship: *“The guys behave differently with different staff...I don’t believe it is so much how staff treat the prisoner, I believe it is more linked to who is the staff...A point of note would be to identify who is on duty when the negative behaviour heightens... when a prisoner behaves in a certain way, staff’s attention becomes elevated to the behaviour.... If a staff member can relate, engage, and garner respect, the interaction can be moderated in a positive manner... I think prisoners behave differently with different staff. It’s a relational thing... Staff often don’t understand or show empathy... The prisoner’s behaviour is foreign to them”*

Passive resistance: *“It doesn’t capture passive resistance and other manipulation tactics prisoners use to get their own way... The DASA doesn’t pick it up, coz it’s not aggressive enough... The DASA doesn’t highlight passive resistance effectively”*

Cultural relations: *“Culture has changed over the years. Like the type of music they listen to; the way they talk. So understanding the social environment is really important. Like the younger officers; one guy who speaks Tongan, they often get along better with the prisoners. They joke around, but also get them to listen”*

Recommendations: *“Add an item to target passive resistance. You would be able to see the build-up better then... we can see it already, but there is nowhere to record it...some consideration around scaling would be good...include a moderate...we need to run some trainings... more training would probably be good”*

Auckland Women's Prison

Easy, but unclear at the beginning: *"It was easy enough. We did it at the end of each day after lock...It wasn't rocket science...I thought it was quite easy. At the beginning I was confused... It wasn't made clear (that we stick to the same prisoners)...It was easy enough to do at the end of the day"*

Understanding behaviour: *"Gives us an idea of their signs; a heads up if you see their moods change... you would see; the charts could be up and down... It's handy to have to read what's going through their mind each day. Their behaviour changes... It's an accurate account of the behaviours of our prisoners"*

Add a scale for each item: *"Maybe add two's or three's. Some of the behaviours deserve a three...With the zero and the one, I feel a one's not enough for a high security unit... If we had the two's and three's we'd be better prepared"*

Waikeria Prison

Staff communication: *"It was effective for staff – reading the sheets; they would know 'this prisoner's pretty volatile'... From days off I could see what had been going on. Mind you, all the staff talk anyway. The paper was there to reinforce it... It was good for us – the arsehole staff would look at it and stay away from those offenders"*

Extra work: *"It's another bit of paper – it got in the way in a way... It was an extra form; a lot of extra work for one staff member who took the DASA on board. I don't know how you would get staff buy-in. It was well-formatted, but an extra task... It's an extra form, and so an extra task. It was well formatted, but you'd have to get staff buy-in somehow"*

Use on 'Actors': *"Just those identified as having anger issues, or high management needs. If you wanted to use it with everyone you could, but it would be a lot of extra work. For the more severe cases... the DASA is a good way of monitoring where he is at on a daily, weekly basis... I think you would want to identify which prisoners it would suit"*

Staff created issues: *"Staff rostered into the unit often created issues. If you have a set group of people working in your wing they develop similar management*

strategies. One staff member in particular seemed to have a red rag to a bull effect. So those staff that weren't regular on the wing had a different style of management"

Prisoner-staff relationship: *"Officers would identify some prisoners. A group of people that work together for so long; they develop a sixth sense of prisoners and where they're at. The prisoners generally respect a team that works well together with the same philosophy. And we are generally able to do that"*

Tai Aroha

Understand behaviour: *"It gives you a real quick insight on what sort of space they were in that day or even at the end of the week... really informative tool... it allows me that real quick glimpse of where the guys have been during the week... it's a good tool to gauge the guys... knowing where the particular whanau is on that particular day. Where his mind's at; where his behaviour's at; what's triggered that behaviour... having a good overview of where that whanau member is with regards to behaviours. Is he settled or unsettled? It gives us a wider view of what's going on for that particular resident. And how ongoing it is... I see those patterns forming, and those patterns will lead into something. And to see those patterns, you can get on top of that before that pattern leads into something serious"*

When score it: *"When we debrief to another shift we'll go to the DASA... it's an open book, any staff member can actually come and score if they need to... if you've got nothing to score, don't score at all... it fits in the debrief... I'll just go back while my mind's still fresh and go through the DASA"*

Communication: *"We'll just talk to one another... if you don't have that conversation, you probably miss things. The communication can happen between staff. Even if nothing much happened on a shift, but a couple of incidents, the communication between staff will take place... it certainly initiates communication between staff... that'll be discussed, and that becomes part of the brief... and better interaction... the communication is a lot more out there in our views with what's happening with the men"*

24 hour period: *“You’ve got a clear 24 hour shot indicative of the client’s behaviour during that period... it’s definitely got staff concentrating on that 24 hours escalation, rather than historically when there’s an incident that escalated, staff are still talking about it two weeks later... once that 24 hour period is over it’s almost as if they’re looking at another issue, because it’s a different issue all the time... I find it useful, in the sense that it is based on just that 24 hour period... We can carry things on to the next day, and sometimes that can affect your judgement... it enables you not to kind of poison or affect your observation of the resident from day to day”*

Use with all residents: *“Especially here, because we’re high risk violence... it’s excellent for us coz it also gives us an insight on their change processes... Newer guys, for instance, will feature more in the one category... Those that are quite comfortable and quite committed to change, you know, they don’t feature as much...client-wise, yea, high risk offenders definitely... But for us, it tells us what’s going on in the guy’s life”*

Focus on ‘Actors’: *“We can focus our support more on the guy that’s elevated. He might have a moderate to even higher rating. So we do go in and support that guy. Whether that might be one-on-one, having a korero, giving him space, because we know where he’s at... So we will focus more on a guy who’s got a higher rating than guys that are low and stable... with this at least I know yesterday he was up, so there’s something going on there... Definitely high risk offenders departments... I mean if you’re working with men that don’t experience those triggers on an ongoing basis, maybe not... I would recommend it to most rehabilitative, or not most; all”*

Focus on relevant behaviour: *“Staff are just more concentrated on that particular behaviour. And when the behaviour’s gone, staff just move on, carry on with their job... if he had that one-off and it’s all clear through the week, there’s zeros right through, it’s not a high alert for me... for me to be able to identify whether there is a problem with a resident is if there is consistency through that week, then that needs to be attentioned at least”*

Different approach: *“Staff’s approach is a lot more understanding. They’ll see a behaviour, have a look at this, read it, and then their approach is different... This has definitely given them the tool to deal with different situations... Staff wait till they calm down, till they de-escalate... it sort of gives them an understanding that the resident is not gona listen to you, won’t hear you until he calms down... The higher the escalation, the more observant they get”*