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Community and Health Sciences
Department of Psychology

Mini Thesis

The Association between Perceived Parenting Styles and Adolescent Substance Use

In Partial Fulfilment of the requirements for the MPsych Degree at the University of
the Western Cape

Student Name: Roxanne Henry

Student Number: 2554869

Department: Psychology

Supervisor: Mr Kamal Kamaloodien

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ABSTRACT

Using the literature on Baumrind's theory of Parenting Styles and how perceptions of these are associated to adolescent at-risk behaviour, this study set out to examine whether any parenting style increased or decreased adolescent substance use. The central aim of this study was to examine the association between perceived parenting styles and adolescent substance use. To further this, 239 grade 10 and 11 adolescent participants were drawn from 3 schools in Mitchell's Plain, a suburb in the Western Cape (with permission granted from the Education Department). This particular suburb was chosen due to the high rates of substance use and substance related crime within the area. A quantitative research design was implemented within this study. The participants were required to complete the Drug Use Disorders Identification Test (DUDIT), a questionnaire aimed at measuring drug use, and the Parental Authority Questionnaire (PAQ), aimed at measuring perceived parenting styles and a Biographical Questionnaire to provide additional information. Informed consent was obtained and the confidentiality of the schools and participants were protected. Data analysis was conducted using SPSS, a data analysis programme available at the University of the Western Cape. Results show that substance use reduction was significantly related to a perceived authoritative parenting style. However, no significant relationships could be found between perceived permissive and authoritarian parenting style. Significant difference was found in the results obtained for male and female adolescents, with males generally appearing to use more substances. It can be concluded that perceived authoritative parenting styles have an important role to play in the prevention of adolescent substance abuse. However there are numerous factors around substance abuse in adolescents that need to be taken into consideration. Limitations of the study include that it did not measure for alcohol use amongst the adolescents. Based on the results obtained, it can be concluded that perceived authoritative parenting styles can be positively associated with a reduction in substance use in adolescents. Based on this, one of the recommendations made is that psycho education be provided to parents around their parenting styles as a preventative measure against future substance use in adolescents.

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Chapter One

Introduction

Substance use is a significant issue impacting on the lives of South African adolescents. Within the Western Cape, Cerff's (2008) study revealed that there are consistently more people receiving treatment for substance abuse problems under the age of 20 years, than for any other age group. Adolescent substance use and abuse is considered to be problematic due to the long term effects such as biological, mental and emotional damage to an individual, as well as having an impact on their family (Carr, 2006 & Sadock & Sadock, 2003). These assertions give rise to questions around why adolescents within South Africa, and specifically the Western Cape, are increasingly using substances.



Baumrind (1991) linked parenting styles, grouped into discrete subtypes, namely authoritative, authoritarian, and permissive and its subtype neglecting/rejecting, to adolescent substance use. Specifically, authoritative parenting styles were linked by Baumrind (1991) to a lowered rate of substance use, while authoritarian and permissive parenting styles were linked to a higher rate of substance use in adolescents. Parenting styles would appear to be a factor related to adolescent substance use that might provide some answers to this phenomenon within a South African population.

Adding complexity to an understanding of adolescents, Newman, Harrison Dashiff & Davies (2008) introduced the notion that how adolescents perceive the parenting styles employed by their parents, whether effective or ineffective, impacts on the

amount of at-risk behaviour they are likely to be involved in. Specifically, adolescents who perceive their parents as engaging in an authoritarian, permissive or rejecting/neglecting parenting style are more likely to engage in at-risk behaviour, with the converse being true for authoritative parenting styles. This holds true for rates of adolescent substance use, also considered to fall within the realm of at-risk behaviour.

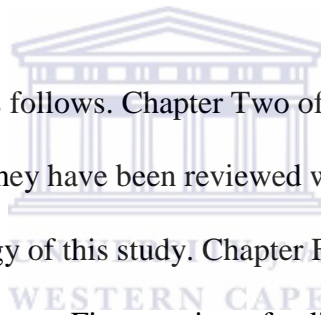
Based on the findings of these studies, it would seem that one factor related to whether adolescents use substances is their perceptions of the parenting styles employed by their parents. Furthermore, depending on which parenting style is displayed by a parent, this parenting style can have been shown to either predispose adolescents to substance use, or protect them from substance use. Based on this, a study that focuses on the area of adolescent substance use and perceptions of parenting styles could be of value within a South African population, specifically when considering that research within this area is both minimal and vital.

Drawing on this, the primary research question of the present study is to examine adolescent perceptions of parenting styles and whether this is associated to their level of substance use within a South African sample. Specifically, the research aims to use the measures of authoritative, authoritarian and permissive parenting styles, identified by Baumrind (1991) to measure for any possible association to adolescent substance use and abuse. This study's rationale can be found in the seriousness of adolescent substance abuse, as it affects both the individual and society at large driving a need to discover more about this phenomenon. One of the goals of this study, as well as a second rationale, is that depending on the results acquired, possible preventative

measures can be developed and implemented to assist in the reduction of adolescent substance use.

These rationales are drawn from results obtained by Brooke, Morojele, Pahl & Brooke (2006), who in a previous study produced various distal and proximal factors related to adolescent substance use. One of these distal factors was parenting, of which an aspect is parenting styles. For the purposes of researching these concepts, a sample of participants was obtained from three schools within the Mitchell's Plain area. A quantitative research design was implemented. The specifics of the implementation of this study will be further discussed in Chapter Three.

The outline for this study is as follows. Chapter Two of this study consists of an overview of key concepts as they have been reviewed within the literature. Chapter Three reviews the methodology of this study. Chapter Four focuses on the results obtained within this study. Chapter Five consists of a discussion of the results obtained as they pertain to the literature and chronicles any conclusions and recommendations that can be drawn from this study.



Chapter Two

Literature Review

2.1 Introduction

An exploration of the literature surrounding the various aspects of this research, namely parenting styles, adolescent perceptions and adolescent substance use is necessary in order to develop a more rigorous understanding of the research. This will focus specifically on how perceived parenting styles are associated with adolescent substance use. To achieve this, an understanding of the family system, the theoretical framework of systems theory and a specific focus on Baumrind's parenting styles and related parenting styles will be discussed. Research that has focused on the manner in which adolescents perceive their parents and their parenting styles, as well as how this predisposes them to at-risk behavior will also be examined, since this is a defining variable within this study. Furthermore, a brief overview relating to the history of substance use in South Africa, as well as the specific demographic and historical background of the area and population being studied within the research will be provided. This is intended to provide insight into the context in which this study took place. Lastly, adolescent substance use as it has been examined in the literature will be examined.

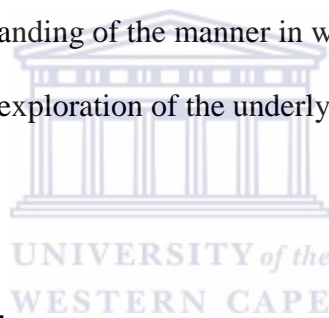
2.2 Family Interactions

2.2.1 What is a Family?

Due to the rapidly changing views of family as a result of divorce, single parent households and the emergence of blended families, Carr (2006) states that familiar cannot be viewed within the stereotypical nuclear family structure, but are better defined as “a network of people in the child's immediate psychosocial field” (Carr,

2006: p.3). McGoldrick, Heiman & Carter (1993) view a family as a system of individuals who are bound together by a shared history and future.

The key difference alluded to by Carr (2006) and McGoldrick *et al* (1993) between a family system and any other system is that while an individual can negotiate entrance and exit to most other systems, for example, deciding whether to accept employment at a particular company, a family system can only be entered into by birth, adoption or marriage, and exited by death. McGoldrick *et al* (1993) state that faced by a system from which there is no escape, it can be deduced that individual level of functioning is largely impacted on by the family system from which the individual emanates. In order to gain a deeper understanding of the manner in which an individual is impacted on by their family system, an exploration of the underlying theoretical framework of systems theory is required.



2.2.2 Theoretical Framework

Dowling (1985) defines systems theory as “individual behaviors being viewed in the context of the system in which it occurs” (Dowling, 1985, p.5). A family is described as one such system. In this system each individual has an impact on all the others in the system, as well as on the system in general. This view is expanded on by Henry, Robinson, Neal & Huey (2006) who describe the family system as an invisible network that consists of complicated patterns of interaction that define the daily interactions of all individuals within the family. The effectiveness of these interactions determines the functionality of the system, and the level of cohesion between members.

Within a family system, consensus is found by Carr (2006), Sadock & Sadock (2003), Henry *et al* (2006) and McGoldrick *et al* (1993) in that families consist of parents, who fulfil the role as caregivers, and children, who are often dependant on their parents as primary caregivers. Parents are required to provide for both the physical and emotional needs of their children, and are often regarded within the system as being the chief socialisation elements for their children (Padilla-Walker, 2008). Socialisation includes parents acting as the emotional regulators for their children until they are able to sufficiently regulate their own emotions and behaviours. Padilla-Walker (2008) regards this socialisation process as continuing through adolescence, though the main medium of socialisation switches from parents acting as external regulators to adolescent perceptions of their parents behaviours becoming the main regulatory and socialisation tool. One of the ways in which the socialisation of children and later adolescents occurs is in the manner in which they are raised by their parents. Newman *et al* (2008) discusses many aspects of the parent/adolescent relationship. One specific aspect of parenting is the focus on this research, namely parenting styles. This is defined by Sadock & Sadock (2003) as “the way in which children are raised” (Sadock & Sadock, 2003, p. 35).

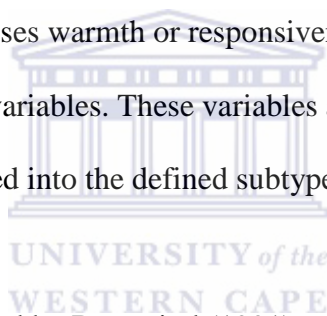
2.3 Parenting

2.3.1 Baumrind’s Parenting Styles

While parenting styles have been defined in numerous ways by different researchers, consensus is held by Newman *et al* (2008), Carr (2006), Pellerin (2005) and other researchers that Baumrind’s typology of parenting styles is the general standard. Baumrind (1966) initially separated her typologies for parenting styles into three discrete models of parental control namely; authoritative parenting, authoritarian

parenting and permissive parenting. A further subdivision of permissive parenting, namely neglecting/indifferent parenting, was defined by Baumrind (1991) to account for those parents who did not appear to have any interest or ability to parent their children and generally evaded responsibility for them. Baumrind (1966) located her parenting styles typology within the broader systems theory.

An understanding of the principles on which Baumrind developed her model of parental control, more typically referred to in the literature as parenting styles is provided by Pellerin (2005) and Carr (2006). Drawing on the cluster analysis performed by Baumrind to develop her theory, Pellerin (2005) classifies parenting on a two dimensional scale that uses warmth or responsiveness and control or demandedness as significant variables. These variables allow for the differing parenting styles to be organised into the defined subtypes.



These subtypes as characterized by Baumrind (1991) are:

- authoritarian parenting, which score high on control or demanding scales and low on warmth thereby being defined as unresponsive
- authoritative parenting, which score high on both warmth and control scales thereby defined as demanding and responsive
- permissive parenting, which score high on responsive but low on demanding scales thereby shown to be warm yet low on control; and its subtype,
 - neglectful parenting, which score low on both demanding and responsive scales, seen as neither warm nor controlling.

These form the basis of an understanding of what is inherent to the various parenting styles.

They have often been expanded upon by many other researchers by providing descriptive adjectives that further clarify the differences within each subtype of parenting styles. Donenberg, Emerson, Bryant & King (2006) use the terms parental monitoring, perceived parental control and effective discipline that explicitly expand on the variable of control, with the variable of warmth being implicit in the type of control being evaluated. Pellerin (2005) maintains that Baumrind's theory provided the research standard within the area of parenting styles.

Within her own research, Baumrind (1991) specifies that authoritarian parents demand a great deal of unconditional compliance and obedience. However, they are not responsive to the emotional demands of their children. In addition to this, Baumrind (1991) adds that while authoritarian parents may set rigid boundaries and limits for their children, these parents tend to be overly intrusive in their children's lives. Authoritative parents though, according to Baumrind (1991) are more likely to strike an ideal balance between the controlling and limit setting aspects of parenting, and the emotive, responsive aspects. Permissive parents are defined as being extremely responsive to their children, but tend toward leniency and unconventional parenting techniques, and are unlikely to set limits and controls on their children.

Baumrind's (1991) subdivision of permissive parenting, namely the rejecting-neglecting subtype is defined as a permissive parenting style that is "neither demanding nor responsive" (Baumrind, 1991, p.62). Parents who ascribe to this style of parenting do not impose limits on their children, nor do they set any structures for their children. In addition to this, Baumrind (1991) adds that parents who engage in

this style of parenting might actively reject their children, and are likely to neglect their parental responsibilities altogether.

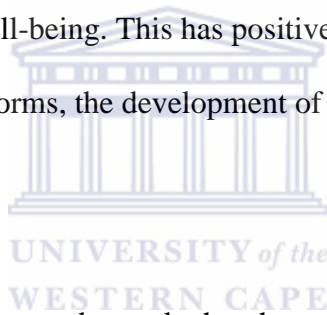
In order to illustrate how various parenting styles can be predisposing factors in adolescent substance use, Baumrind (1991) uses a systems theory approach. Inherent in the use of this approach is the idea that each individual affects another individual within the same system. Parents use parenting styles to interact with their children, which have an effect on how adolescents behave, both positively and negatively.

2.3.2 Parenting Styles within the Literature

Newman *et al* (2008) published an integrative literature review examining research spanning 20 years. This systematic review focused on the relationship between parenting styles and adolescent at-risk behaviour. Conclusions drawn by Newman *et al* (2008) reveal more positive outcomes for adolescents whose parents used parenting styles which conformed to the authoritative parenting style than those who engaged in parenting styles that conformed to other parenting style prototypes. The researcher will now examine several other studies that examine the relationships between parenting styles and specific adolescent outcomes (both negative and positive).

Lee, Daniels & Kissinger (2006) conducted a study linking parenting and adolescent adjustment. Baumrind's parenting style subtypes was a key concept within this study. The results indicated that each of the subtypes had an effect on adolescent self concept, locus of control, and academic achievement. More specifically, Lee *et al* (2006) found that parents who engaged in authoritative parenting were most likely to have adolescents with positive self concepts and an internal locus of control.

Gunnoe, Hetherington & Reiss (1999) conducted a study examining parental religiosity, which was linked to authoritative parenting and future adolescent social responsibility. This study found that adolescents who displayed elements of social responsibility often had parents who displayed authoritative parenting, and revealed higher levels of religiosity. Mupinga, Garrison & Pierce (2002) explored the link between parenting styles and family functioning. They found that balanced family types, which tended to function more effectively, were positively linked to authoritative parenting styles and negatively linked to authoritarian parenting styles. Well balanced families that engaged in effective parenting were more likely to have an increase in stability and well-being. This has positive implications for cognitive development, conformity to norms, the development of moral character and optimal competence development.



From these studies, a deduction can be made that those adolescents whose parents display an authoritative parenting style display greater self competence, stability and adjustment. Adolescents whose parents display an authoritarian or permissive parenting style tend to engage in higher levels of at-risk behaviour. Since the focus of this research is less on the objective parenting styles employed by parents and more on the association between adolescents' perceptions of their parents' parenting styles and their subsequent substance use; it is important to examine these perceptions, it's impact on adolescent at-risk behaviour and whether these perceptions differ significantly from objective parenting styles.

2.4 Adolescents

2.4.1 The Process of Adolescence

Adolescence is defined as “a critical period in that during this time, the development of healthy behaviours and lifestyles that impact on later adult functioning occurs” (Newman *et al*, 2008, p. 142). The period of adolescence, which is considered by Carr (2006) to occur between the ages of thirteen to twenty years, has been described as a time that is “characterised by profound biological, psychological and social developmental change” (Sadock & Sadock, 2003, p. 35). During this time, the individual struggles with both the development of their emerging adult identity, as well as the internalisation of the principles and morals of their parents and teachers (Sadock & Sadock, 2003). During this time, emerging adolescent also find themselves negotiating Erikson’s fifth stage in their life cycle, namely identity versus role confusion (Sadock & Sadock, 2003). Newman *et al* (2008) further adds that during this fragile period in an individual’s life, at-risk adolescent behaviour is often impacted on significantly by the relationship that exists between the adolescents and their parents. Compounding this is the high levels of environmentally linked stress faced by South African adolescents, such as crime and violence, HIV and the ravages of apartheid (Brooke *et al*, 2006). Furthermore, Mckinney, Donnelly and Renk (2008) stress that the way in which adolescents perceive their parents and their relationship with them has a significant effect on their later outcome and risk for the development of unhealthy behaviour and lifestyles.

2.4.2 The Importance of Perceptions

Perception is defined as “the process by which we make sense of our surroundings by interpreting the information from our sense organs” (Groome, 1999, p. 22). This is generally a subjective understanding of the environment that is often built on past experiences and the interpretations thereof, for example, drawing the conclusion that someone is married by observing a wedding ring on their left finger, which usually signifies marriage. Within the family system, it can be deduced that past interactions between parents and children, specifically those that have occurred within the context of raising them, impact on the current perceptions adolescents have of the manner in which their parents have raised them. Albrecht, Galambos & Jansson (2007) and Padilla-Walker (2008) regard adolescents perceptions of their parents, with regards to their parenting and emotional connectedness, as impacting their own behaviour and emotions in both a positive and a negative way. Thus adolescent perceptions of their parents can lead to at-risk behaviour.

A specific focus on how parenting styles are perceived by adolescents and the effect this has had on risky behaviour has been examined in the following section.

2.4.3 The effect of adolescent perceptions of Parenting Styles

Jackson – Newsom, Buchanan & McDonald (2008) researched the link between parenting and perceived parental warmth within a population of European American and African American adolescents. Conclusions drawn included that perceived parental warmth correlated with parenting styles as set out in Baumrind’s theory, though perceptions of discipline changed depending on culture and context. This is an

important consideration within a South African sample due to the multiracial and multicultural nature of South Africans in general.

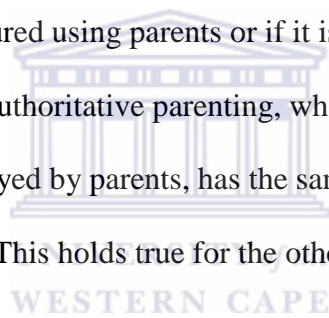
McKinney *et al* (2008) focussed on perceived parenting as well as negative and positive perceptions of parents within an adolescent sample. Furthermore this was related to late adolescent emotional adjustment. Conclusions drawn indicated some correlation between late adolescent emotional adjustment, perceived parenting and positive and negative perceptions of parents, though significance was found only when all these factors were examined separately.

Aspects of perceived parenting styles including parental permissiveness and monitoring, formed the basis of studies conducted by Donenberg, Wilson, Emerson, & Bryant (2002). They focussed on the early sexual debut amongst adolescents. Findings revealed that perceived levels of low monitoring and increased permissiveness had a direct effect on earlier adolescent sexual debut. Though it is not the focus of this study, early sexual debut, much like substance use, is also considered an adolescent at-risk behaviour.

Brand, Hatzinger, Beck & Holsboer-Trachsler (2009) also used perceived parenting styles in their research on the role that parenting styles had on sleep patterns and personality traits in adolescents. Results indicated that adolescents who perceived their parents as having negative parenting styles; defined by inconsistent discipline, monitoring and low warmth; tended to show poor quality of sleep and more anxious and depressed personality traits. The opposite was true for adolescents who perceived

their parents as demonstrating more positive parenting styles; characterised by consistency in discipline, increased warmth and monitoring.

Based on the aforementioned studies, a conclusion can be drawn that the perceptions that adolescents have of their parents' parenting styles is as important an influence on their vulnerability for engaging in at-risk behaviour, as the actual parenting styles employed by parents. Furthermore, it appears from the research conducted by Brand *et al* (2009), Donenberg *et al* (2002), Jackson-Newsom *et al* (2008) and McKinney *et al* (2008) that the effects that the various measures of parenting styles have on adolescent at-risk behaviour remains the same. This is in spite of whether the parenting style is being measured using parents or if it is measured as the perceptions of adolescents. Specifically, authoritative parenting, whether perceived as such by adolescents or actually employed by parents, has the same effect of reducing adolescent at-risk behaviour. This holds true for the other subtypes as well



Within South Africa, a specific adolescent at-risk behaviour has been observed to cause a great deal of distress within individuals and their larger family systems. This phenomenon is adolescent substance use. Statistics published by the South African Community Epidemiology Network on Drug Use and researched by Plüddemann, Parry, Cerff, Bhana, Potgieter, Gerber, Petersen & Carney (2008) revealed an increase in the number of people reporting for treatment for substance use and abuse. Within the Western Cape, Cerff (2008) report that 21 % of substance abusers treated by the various treatment centers fall within the age grouping of 15 and 19 years old. This is the highest percentage of any age group measured. A discussion of the phenomena of

adolescent substance will ensue, as it is this at-risk behaviour that is one of the focus areas of this study.

2.5 A Specific Focus on Substance Use

2.5.1 A Historical Overview of Substance Use in South Africa

It is important to note that substance abuse in general has been a constant dilemma throughout South African history. London (2000) writes that the use of the “dop” system, which is the use of alcohol as wage payment for farm workers and was implemented, during the early colonial settlement years, can still be found in rural farmlands. It has been well documented and is still currently being implemented in certain rural areas. One of the results found by London (2000) is that alcohol consumption amongst farm workers remains high on farms where the “dop” system is, or was implemented. From this, the conclusion can be drawn that alcohol dependence is also high within that population. Currently statistics compiled by Plüddemann *et al* (2008) reveal that alcohol is still one of the most abused substances within South Africa. This fact is compounded by alcohol being both legal and easily available.

With further examination of substance abuse within more urban areas, Burger & Gould (2002) makes mention of the pervasive rumours that abound concerning Wouter Basson’s apparent introduction of the illegal drugs Ecstasy and Mandrax into the Cape Flats. Wouter Basson is considered one of the main instigators of Apartheid. Jeanneret (2008) referred to the Cape Flats as an impoverished area within the Cape Town Metropole which was designated as a living zone for those who fell within the black (anyone not classified as white) racial classification during the Apartheid

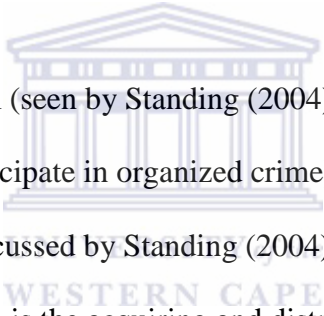
regime. The motivation behind the introduction of these substances appeared to be, as understood by Burger & Gould (2002), an attempt to enslave an entire race group and thereby subduing them. While it was never proven within a court of law that these rumours should be given any credence, Burger & Gould (2002) write that the lack of evidence that would support the rumours disappeared as part of a 'cover up' by the old Apartheid regime. What is a reality is that Mandrax, reported to be one of the substances distributed as part of the alleged illicit project, is revealed by Leggett (2004) to be (until the advent of Crystal Methamphetamine) one of the most used illegal substances recorded.

2.5.2 Present Day Substance Use in South Africa

Recently Plüddemann *et al* (2008) listed Crystal Methamphetamine as the illegal substance that is currently the substance of choice for most substance users in the Western Cape, specifically those who fall under the age of 20 years. The effects of substance use by individuals of this age are widespread. Leggett (2004) describes the harm caused by substance use as ranging from the immediate physical, mental and psychological damage to users, to the harm addiction causes to the surrounding family system and friends. Leggett (2004) also reports that a surge in substance related crimes has been observed by the police.

When examining the present rate of substance related crimes within Cape Town, Gie (2009) reveals that one specific area of the Cape Flats, namely Mitchell's Plain, has the highest percentage of substance related crime within the entire Cape Town Metropole. Jeanneret (2008) further adds that although the end of Apartheid put an end to racial segregation, the levels of poverty have resulted in this segregation still

largely being in place. A large number of black South Africans still live in the impoverished areas to which they were forcefully removed under the Apartheid regime. Gie (2009) notes that the level of impoverishment in these areas and the advent of Crystal Methamphetamine, combined with the high unemployment rate mentioned by Standing (2004), could account for the high level of substance related crimes in areas such as Mitchell's Plain. In addition, it is in this area known as the Cape Flats, including Mitchell's Plain, that Standing (2004) reports that gangsterism has flourished. Gang lords, who are often also drug merchants, achieve celebrity status within the communities that they both terrorise and assist with illegally gained money (Standing, 2004 & Jeanneret 2008).

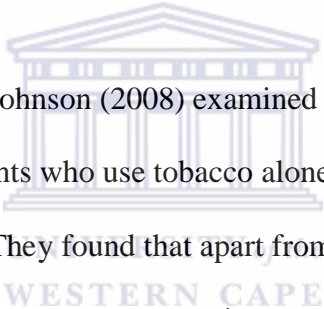


The link between gangsterism (seen by Standing (2004) as criminals working within a chain of command who participate in organized crime) and crime in general is not to be underestimated. This is discussed by Standing (2004) as a complex network of various domains, one of which is the acquiring and distribution of illegal substances. From the statistics detailed by Plüddemann *et al* (2008), it appears that one of the target markets for drug lords are a substantial adolescent population who account for 23 % of admissions for treatment of substance abuse.

South Africa is not the only country to experience difficulties with adolescent substance use, and a great deal of research in this area has been conducted in order to attempt understand the phenomena and establish possible predictive factors for adolescent substance users, thereby endeavoring to discover possible preventative measures.

2.5.3 The Effects of Substances Use on later Adolescent Healthy Living

Specific substances and their effects on adolescent lifestyles have been the focus of the following studies. Swift, Coffey, Carlin, Degenhardt & Patton (2008) followed the life path of adolescent cannabis users at the age of 24, looking specifically at those trajectories that lead to regular weekly use and dependence. It was concluded by Swift *et al* (2008) that early onset of regular and persistent cannabis use could act as a predictor of later difficulties with cannabis use. Regular cannabis use was also found to be linked with regular tobacco use, a substance commonly thought to be a gateway substance used by adolescents. This is often used as an initiatory substance leading to the use of more dangerous substances later on.



Okili, Richardson, Ratner & Johnson (2008) examined the rate of tobacco dependence amongst adolescents who use tobacco alone and those who use tobacco concurrently with marijuana. They found that apart from acting as a gateway to more serious substance use, marijuana use appears to increase the likelihood of increased tobacco use amongst adolescents. This is concluded by Okili *et al* (2008) to have serious health consequences later on in their lives.

Schuckit *et al* (2008) examined the implications for prognosis in adolescents who have been diagnosed with alcohol use disorder, considered to be the constant use of alcohol despite negative consequences (Sadock & Sadock, 2003). A follow up conducted five years later revealed that 50 % of adolescents who received an initial diagnosis maintained it, with 19% go on to develop a dependence disorder, which is the perpetuation of constant substance seeking activities and co-occurring physical and behavioural changes (Sadock & Sadock, 2003). Conclusions drawn by Shuckit *et al*

(2008) reveal that adolescents for whom a diagnosis can be made display a predicative validity for maintaining the diagnosis later within their lives.

These studies serve to illustrate that adolescent substance use can be related to later dependence and health difficulties. Based on this, a great deal of focus has been placed on discovering both the predisposing risk factors related to adolescent substance use and possible protective factors. A predisposing risk factor is defined as “risk factors that pre-dispose a child to developing a later mental disorder” (Carr, 2006: p.40).

Various predisposing risk factors such as gender, childhood experiences such as trauma, co-occurring psychological disorders and personality traits have been shown to be connected to adolescent substance use (Brawn & Roe-Sepowitz, 2008; Danielson *et al*, 2008; De Genna *et al*, 2009; Fergussen *et al*, 2008; Gunnarson *et al*, 2008; Jaszyna-Gasior *et al*, 2009; Mason *et al* 2008; & Von Dieman *et al*, 2008).

Other factors such as sports participation, a reduction in tobacco smoking and the use of internalising behaviours have been researched as possible protective qualities against adolescent substance use (Campell, Chi, Sterling, Kohn & Weisner, 2008; Wichstrom & Wichstrom, 2008 & Winters, Stinchfield, Latimer & Stone, 2008). The present study, which focuses on the association of adolescent substance use and their perception of parenting styles, is located within both the realm of predictive and protective factors of adolescent substance use.

2.6 Joining the concepts - the present study

Brooke *et al* (2006) used quantitative measures to try and determine which factors are most likely to be a predictor for adolescent substance use within a South African sample. Brooke *et al* (2006) isolated a few distal factors that could perform as predictors of adolescent substance use. Parental factors are one such distal factor that can be observed to predispose adolescents towards at-risk substance use behavior. One of the recommendations that Brooke *et al* (2006) provide an in depth examination of the factors mentioned in their study would provide a better understanding of adolescent substance use within South Africa, in that a basis for a more efficient intervention on the illicit substance epidemic might be found.

Baumrind (1991) published longitudinal research using her theory of Parenting Styles in an attempt to predict adolescent substance use. Based on this research, Baumrind (1991) deduced that adolescent substance use tends to increase with the presence of an Authoritarian, Permissive or Neglecting/Rejecting Parenting Style. Conversely, adolescents whose parents employed an Authoritative Parenting Style appeared to have lower levels of substance use.

Conclusions drawn by Baumrind (1991) is that parents who are overly intrusive and controlling, such as authoritarian parents, and parents who do not set any limits on their children and tend to be inconsistent or lacking in the manner in which they discipline their children, are most likely to raise adolescents who are at risk for substance abuse. Of all the parental subtypes, Baumrind (1991) has implicated the

rejecting – neglecting subtype of permissive parenting as the parenting style which places adolescents most at risk for developing a substance use problem.

Kandel (1990) concurs with Baumrind (1991) in that adolescent substance use can be attributed to parents who display either permissive or authoritarian parenting. Factors such as a lack of closeness between parents and adolescents; lack of affection or acceptance of adolescence by their parents; poor monitoring of adolescents by their parents; poor discipline and parental control and inconsistency in parents all, lead to adolescent substance abuse (Kandel, 1990).

Adding complexity to the understanding of parenting styles and adolescent substance use are the conclusions drawn by Padilla-Walker (2008) and Albrecht *et al* (2007) on the importance that adolescent perceptions of their parents. More specifically the impact their parents' parenting styles has on their engagement in at-risk behaviour, of which substance use is one. Based on these factors, a South African study that focuses on providing an understanding of the association between perceived parenting styles and adolescent substance use is necessary to assist in an understanding of a phenomenon which is regarded by Gie (2009), Plüddemann *et al* (2008) and Leggett (2004) as a serious problem

2.7 Conclusion

The literature reviewed has focused on the key concepts contained within this study, namely parenting styles, adolescent perceptions, and how it has been related to parenting styles. Furthermore adolescent substance use has been explored by various researchers and how it specifically relates to a South African context. Within the

following chapters, the current study will be detailed in terms of its methodology, results, discussion and conclusion so that an understanding as to how perceived parenting styles are associated with adolescent substance use within a South African context can be further developed.



Chapter Three

Methodology

3.1 Aim

The central aim of this study was to examine the association between perceived parenting styles and adolescent substance use within a South African population.

Furthermore, control variables such as gender, age, school, grade, the primary caregivers of the adolescent and the area in which they lived, were measured to determine whether these extraneous variables were also associated with adolescent substance use.



3.2 Research Paradigm

The research paradigm used to analyse the data collected in the study was a quantitative research paradigm. This paradigm was chosen due to the fact that quantitative research utilises the data and results collected using empirically based observations. It can therefore provide answers to the research question that can be generalised to overall governable human behaviour (Terre Blanche & Durrheim, 1999).

Von Eye & Schuster (2000) indicate that some of the advantages of using a quantitative research paradigm are that it provides a measurable construct that is transparent. This will allow a notoriously difficult area of research, namely psychological theory, to be measured. Its statistical aspects also make it accessible to a large portion of the scientific community. In addition to this, Schultze (2003)

ascribes the quantitative research paradigm to the term positivism. This refers to the fact that empirical observations can be made which can be publicly verified.

The benefits therefore of using a quantitative research paradigm for this study is that it allows for objective and standardised measures of perceived parenting styles and adolescent substance use. This allows for the uniformity of participants' responses, as they were measured using the same constructs. Based on this, statistical significance could be established in some cases, thus allowing for conclusions to be drawn around the association between perceived parenting styles and adolescent substance use.

3.3 Research Sample

3.3.1 Sample Selection

Permission was obtained from the Western Cape Education Department to approach 3 schools within the Mitchell's Plain area, to request permission for their Grade 10 and 11 learners to participate within the study. Three government funded schools granted permission for the study to take place using their learners. Each school agreed to provide 100 learners spread amongst their Grade 10 and 11 classes.

The rationale behind locating the study within schools from the Mitchell's Plain is that research completed by Gie (2009) concluded that Mitchell's Plain has the highest rate of substance related crime within the Cape Town Metropole. From this, it can be deduced that substance use is a serious problem within this area. In addition to this each of the school faced similar difficulties such as inadequate resources and large classrooms that generally consisted of between 40 - 50 learners per class. Each school had also been exposed to the negative effects of substances, substance use, crime and

violence being a common denominator. Criteria for inclusion were that the schools fell within the category of a secondary school, providing access to adolescents, and they were situated in areas within the Mitchell’s Plain District.

3.3.2 Sample Group

Table3.3.2.1 Gender Frequency

		Frequency	Percent
Valid	Male	85	35.6
	Female	151	63.2
	Total	236	98.7
Missing values		3	1.3
Total		239	100.0

From the three participating schools, a combined sample of 239 adolescent learners, limited specifically to Grades 10 and 11, participated within the study. The adolescent participants fell within the ages of 15 – 20 years and consisted of 85 male participants and 151 female participants, a gender split that came as a surprise to the researcher. The majority of the participants indicated that they were English speaking, and fell within the ‘coloured’ racial classification.

3.4 Data Collection

Data collection took place at each school during the life orientation period.

Participants were allowed the entire class period of 45 minutes to complete the research questionnaires. Learners who decided against participating in the study were allowed to continue with other schoolwork during the administration to their classmates. Participants were required to complete a questionnaire booklet containing a biographical questionnaire to provide descriptive statistics. Thereafter the Parental

Authority Questionnaire (PAQ) and the Drug Use Disorders Identification Test (DUDIT), aimed at providing measures of parenting styles, and adolescent substance use (excluding alcohol) was administered. The completed questionnaires were collected immediately by the researcher for further analysis after the administration process was completed. In total, 239 questionnaires were used for data analysis. Incomplete questionnaires were included within the analysis as not all participants had both mothers and fathers as caregivers.

Table 3.4.1 Frequency of Perceived Parenting Styles of Mothers

		Frequency	Percent
Valid	Authoritative	139	58.2
	Authoritarian	76	31.8
	Permissive	9	3.8
	Total	224	93.7
Missing Values		15	6.3
Total		239	100.0

Out of the 239 participants, 224 participants completed the PAQ to provide a raw score that could be computed into categorical information about their perceptions of their mothers parenting styles.

Table 3.4.2 Frequency of Perceived Parenting Styles of Fathers

		Frequency	Percent
Valid	Authoritative	78	32.6
	Authoritarian	72	30.1
	Permissive	19	7.9
	Total	169	70.7
Missing Values		70	29.3
Total		239	100.0

Of the 239 participants, 169 completed the PAQ to provide a raw score and categorical information about their perceptions of their fathers' parenting styles.

Table 3.4.3 Frequency of Adolescent Substance Use according to DUDIT Categories

		Frequency	Percent
Valid	No to Minimal Use	165	69.0
	Problematic Use	69	28.9
	Dependence	2	.8
	Total	236	98.7
Missing Values		3	1.3
Total		239	100.0

Of the 239 participants, 236 completed the DUDIT, thereby providing a raw score that could be computed and categorized according to the DUDIT categories.

3.5 Research Tools

The questionnaires selected for this study were chosen in that they were quick and easy to administer. Both the Parental Authority Questionnaire (PAQ) and the DUDIT yielded the clearest measure of both parenting styles and drug use respectively.

3.5.1 The Parental Authority Questionnaire (PAQ)

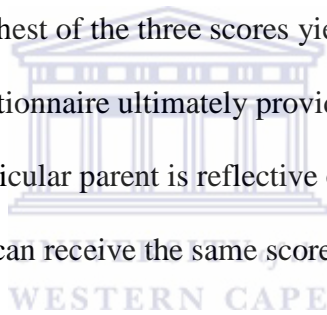
The PAQ measures three of Baumrind's parenting styles, namely authoritative, authoritarian and permissive parenting styles. Buri (1991) designed and validated the questionnaire using adolescent college students and found the questionnaire to be a sound and valid measure of parenting styles. Buri (1991) reported positively on the

reliability and validity of the questionnaire, stating that the questionnaire measured those constructs that it sought to measure, with consistent test-retest and internal consistency reliability for mothers' authoritative parenting style ($r = 0.78$; $r = 0.82$), mothers' authoritarian parenting style ($r = 0.86$; $r = 0.85$) and mothers' permissive parenting styles ($r = 0.81$; $r = 0.75$). Buri (1991) reported similar reliability results for the measures of fathers' parenting style, with a high co-efficient alpha variables for fathers' authoritative ($r = 0.82$; $r = 0.85$), authoritarian ($r = 0.85$; $r = 0.87$) and permissive parenting styles ($r = 0.77$; $r = 0.74$). Buri (1991) also subjected the questionnaire to discriminant – related validity, finding that mothers' authoritarian parenting style was inversely related to authoritative ($r = -0.48$) and permissive ($r = -0.38$) parenting styles and fathers' authoritarian parenting styles were inversely related to authoritative ($r = -0.52$) and permissive ($r = -0.50$) parenting styles. Criterion related validity testing was also performed by Buri (1991) on the questionnaire, using the test measure of parental nurturance. Results obtained by Buri (1991) revealed that parental nurturance correlated highly with authoritative parenting in mothers ($r = 0.56$) and fathers ($r = 0.68$), a negative correlation was observed with authoritarian parenting styles in mothers ($r = -0.36$) and fathers ($r = -0.53$), and unrelated to permissive parenting styles in mothers ($r = 0.04$) and fathers ($r = 0.13$).

Most recently, the PAQ has recently been used in a study by Assadi, Zokaei, Kaviani, Mohammadi, Ghaeli, Gohari & Van de Vijver (2008) examining the effect of socio-cultural context and parenting style on scholastic achievement among grade 8 Iranian adolescents.

3.5.1.1 Administration and Scoring

The PAQ, according to Buri (1991), is administered to adolescents as a 30 statement self report questionnaire that uses a Likert Scale. It is coded in the range of (1) Strongly Agree, (2) Agree, (3) Neither Agree or Disagree, (4) Disagree and (5) Strongly Disagree. The numerical code is equivalent to the raw score for each statement, which is added within the category it falls, 10 statements per parenting style. The 30 statements are repeated, once to measure mother's parenting style and once to measure father's parenting style, to yield 6 separate scores 3 scores each for mother and father respectively, to produce scores on authoritarian, authoritative and permissive parenting. The highest of the three scores yields the dominant parenting style of each parent. The questionnaire ultimately provides insight into what extent the general parenting of a particular parent is reflective of each of the parenting styles, thus meaning that one parent can receive the same score for varying parenting styles.



3.5.2. The DUDIT

Adolescent Substance use was measured using the Drug Use Disorders Identification Test (DUDIT). According to Berman, Bergman, Palmstierna & Schlyter (2005), the DUDIT was developed using the Alcohol Use Disorders Identification Test (AUDIT) as a model to assist in the screening, diagnosing and categorizing of severity of use of substances other than alcohol. Substances are defined as any brain altering chemical (Sadock & Sadock, 2003).

As a stand alone test, the DUDIT specifically measures psychosocial indicators of drug use. It is designed to assess those who have an existing drug problem as well as

those who fall within the category of being at risk of developing a drug problem, it also identifies those who are not at risk of developing a drug problem. Berman *et al* (2005) reported that the DUDIT was assessed for reliability within a Swedish general population prison and detoxification center and found it to be both reliable and valid as a measure of substance use and dependence ($r = 0.80$). Berman *et al* (2005) states questionnaire was initially conceptualised to be used within a school going population, making it a useful tool to use within this particular sample.

3.5.2.1 Administration and scoring

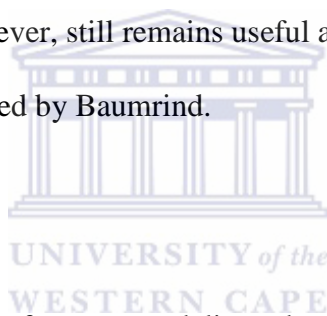
Berman *et al* (2005) reports that the DUDIT is administered as an eleven item self report questionnaire that uses a Likert Scale to grade the responses to the 11 question items. Questions 1-9 are scored on a continuum of a five point scale that scores each of the 5 possible responses on an ascending scale, with the first response “never” receiving a raw score of 0, and the last response “4 times a week or more often” receiving a raw score of 4. Questions 10-11 are each scored on a three point ascending scale of multiples of 2 ranging from the first response “no” receiving a score of 0, to the last response “yes in the past year” receiving a raw score of 4. All of the scores are totaled up at the end of the test to provide a total score. Higher scores indicate higher levels of substance use, whereas scores of 0 indicate an absence of substance use. These scores have been organised by the DUDIT along a continuum with specific cut off scores that places substance use within the categories of “no to minimal substance use”, “problematic substance use” and “substance dependence”.

3.5.3 Limitations to the questionnaires

Both the PAQ and the DUDIT are instruments developed and standardised using non-South African populations, which could be considered to impact its applicability for a South African population. Specifically, the PAQ was standardized using college students, while the DUDIT did not include any adolescents within their population. It should be mentioned however that the limitations due to lack of South African standardisation can be leveled against many internationally developed questionnaires. This study was pursued due to its possible support in providing some insight around the reliability of these questionnaires within a South African Population. Lastly, the neglecting/rejecting subtype of permissive parenting styles is not measured within the PAQ. The questionnaire, however, still remains useful as it provides insight into the original parenting styles defined by Baumrind.

3.6 Ethical Considerations

Information sheets and consent forms were delivered to the school and given to participants a week before the administration of the research, to ensure informed consent. The consent forms were handed out and collected by the Life Orientation teachers at the various schools to be signed by parents and handed back to the researcher prior to the administration of questionnaires to the participants. On the day of administration, participants were orientated to the nature of the study and required to complete assent forms, thereby providing their own consent to participating in the study. The researcher was present during the administration and completion of all the questionnaires and collected them immediately after completion, to assure maximum confidentiality. It was negotiated that the class teachers would not be present during the administration in order to facilitate a more trusting environment. This allowed the



participants a greater freedom to honestly answer the questionnaire. Participants were given the choice to participate within the research, and reminded that there were no consequences for choosing not to participate. In order to protect confidentiality, participants were not required to provide any identifying data that could compromise their confidentiality. This confidentiality was also extended to the schools involved in the research, with whom it was negotiated that the identity of the schools also be kept confidential.

3.7 Data Analysis

The statistical programme used to analyze the data collected was SPSS 16.0, a data analysis programme made available by the University of the Western Cape for research analysis. Three levels of data analysis were performed to produce results relevant to the study. A statistical significance level of 0.05 was selected for the analysis. The statistical analysis tests used were those offered by the statistical programme. Questionnaires that were incomplete or had scores missing, for example those questionnaires that were completed by participants who came from single parent families and therefore could not complete the PAQ for each parent were automatically excluded by the SPSS programme during the data analysis process to assure accuracy during each level of analysis.

3.7.1 Descriptive Analysis

Descriptive data analysis was used to describe the different variables within the varying questionnaires in a manner that would clarify the results obtained by the study. The general substance use of the participants and the number of parents perceived to fall within each category of parenting style was obtained by measuring

their frequency. These variables were then cross tabulated with each other, and other descriptive variables such as gender, to provide an overview of the percentage of substance use per gender and perceived parenting style.

3.7.2 Control Variables

The varying control variables outlined within the biographical questionnaire were analyzed for difference against the measures of adolescent substance use and parenting styles. Nonparametric testing was used for data analysis due to the inclusion of categorical data, with the Kruskal Wallis test for variance used to determine chi – square, thereby assessing for significant difference.

Hypotheses examined using difference analysis includes:

- Significant differences between gender and adolescent substance use.
- Whether a significant difference was found in the substance use of participants of various ages.
- Whether there were significant differences in the substance use of participants who attended different schools.
- Whether there were significant differences in the substance use of participants in grade 10 and 11.
- Whether there were significant differences in the substance use of participants with different legal guardians.
- Whether there were significant differences in the substance use of participants who live in various areas.
- Whether there was a significant difference in the perceived parenting styles of mothers and fathers.

3.7.3 Correlation Analysis

The main level of data analysis was a correlation analysis performed between the raw scores obtained from the PAQ for each category of parenting style per mother and father, and the raw scores obtained on the DUDIT for adolescent substance use, both in total and separated into gender. Normality testing was performed prior to the correlation analysis using the Kolmogorov – Smirnov and the Shapiro – Wilk tests of normality. Based on the varying distributions of the variables, Spearman’s co – efficient, a nonparametric correlation measure, was selected for the analysis.



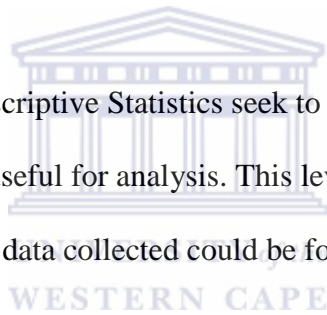
Chapter Four

Results

Four levels of analysis were used in this study. A descriptive analysis of the frequency of substance use in each category of the DUDIT is provided, as well as the frequencies at which each parent falls within the different categories of the PAQ. Scores on the DUDIT have also been subdivided into substance use versus no substance use to provide insight into the general substance use of the participants. For the purpose of defining significance, the standard level of $p < 0.05$ is used to determine whether the results reached by the various tests are significant.

4.1. Descriptive Analysis

Howell (2004) writes that Descriptive Statistics seek to describe the data that is being worked with in a way that is useful for analysis. This level of analysis was performed so that a clearer picture of the data collected could be formed.



4.1.1 Descriptive Analysis of Substance Use

Based on the DUDIT results, 69.9% of participants ($N = 236$) fall within the None to Minimal Level of Substance Use, 29.2 % of participants fall within the Problematic Level of Substance Use, and 0.8% of participants fall within the Dependence Level of Substance Use. Based on these results, it appears that the None to Minimal Level of Substance Use is overrepresented within the sample of participants, while the Dependence Level of Substance Use is underrepresented.

A secondary level of descriptive analysis was performed separating the participants' substance use scores into 2 categories, namely those scores that reveal No Substance

Use and those scores that reveal Substance Use. For the purpose of categorical data analysis, this data set was selected.

Table 4.1.1.2 Substance Use Frequency

		Frequency	Percent
Valid	No Substance Use	139	58.2
	Substance Use	98	41.0
	Total	237	99.2
Missing Values		2	.8
Total		239	100.0

When examining whether or not the participants have used substances, it was revealed that 58.2% of participants (N = 237) have not used substances, and 41.0 % of participants have used substances.

Table 4.1.1.3 Gender / Substance Use Crosstabulation

			Total	No Substance Use	Substance Use
Gender	Male	Count	83	40	43
		% within Gender	100.0%	48.2%	51.8%
		% of Total	35.5%	17.1%	18.4%
	Female	Count	151	97	54
		% within Gender	100.0%	64.2%	35.8%
		% of Total	64.5%	41.5%	23.1%
	Total	Count	234	137	97
		% within Gender	100.0%	58.5%	41.5%
		% of Total	100.0%	58.5%	41.5%

In total, 58.5% of adolescents fell within the category of No Substance Use, while 41.5% of adolescents fell within the category of Substance Use. A further analysis according to gender reveals that of the male participants, 48.2 % do not use substances, while 51.8% use substances (N = 83). Of the female participants 64.2% do not use substances while 35.8% do use substances (N = 151). From these results, it would appear that despite the significant overrepresentation of females within the sample, males are more likely to use substances than females.

4.1.2 Descriptive analysis of Perceived Parenting Styles

Descriptive Analysis of the perceived parenting styles of mothers and fathers reveal the following:

Table 4.1.2.1 Adolescent Perceptions of Mothers' Parenting Style

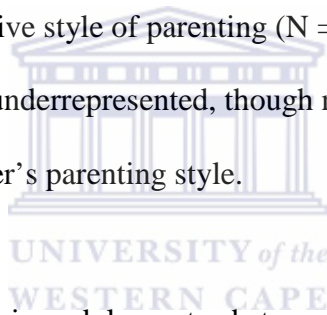
		Frequency	Percent
Valid	Authoritative	139	58.2
	Authoritarian	76	31.8
	Permissive	9	3.8
	Total	224	93.7
Missing values		15	6.3
Total		239	100.0

Within the participants' responses around their mother's perceived parenting style, 58.2% of mothers fall within the category of authoritative parenting style (N = 224), 31.8% of mothers fall within the category of authoritarian parenting style (N = 224), and 3.8% fall within the category of permissive parenting style (N = 224). From these results, it appears that permissive parenting style is underrepresented within the sample group.

Table 4.1.2.2 Adolescent Perceptions of Fathers' Parenting Style

		Frequency	Percent
Valid	Authoritative	78	32.6
	Authoritarian	72	30.1
	Permissive	19	7.9
	Total	169	70.7
Missing values		70	29.3
Total		239	100.0

When examining the responses for father's parenting style, it is revealed that 32.6% of fathers fall within the authoritative parenting style category (N = 169), 30.1% of fathers fall within the authoritarian parenting style category (N = 169) and 7.9% of fathers fall within the permissive style of parenting (N = 169). Again, permissive parenting style appears to be underrepresented, though not as severely as in participant responses to mother's parenting style.



Due to the complexity of studying adolescent substance use, an analysis of variance was performed to control for any extraneous variables that may affect the responses received and results drawn from the questionnaires.

4.2. Control Variables

Based on the categorical nature of some of the captured data, the form of analysis performed was nonparametric. The Kruskal Wallis Test for Variance was performed to analyse whether any significant differences existed within the control variables.

This test is considered to be the nonparametric equivalent test to the standard ANOVA test used to analyse difference.

4.2.1. Gender Hypotheses

- Null Hypothesis: There is no significant difference between Gender and Adolescent Substance Use

Table 4.2.1 Gender/Substance Use Difference Table

Ranks			
	Substance Use	N	Mean Rank
Gender	No Substance Use	137	124.84
	Substance Use	97	107.13
	Total	234	

Test Statistics^{a,b}	
	Gender
Chi-Square	5.658
Df	1
Asymp. Sig.	.017
a. Kruskal Wallis Test	
b. Grouping Variable: Substance Use	

When examining the rate of substance use generally amongst males and females, results reveal that there is a significant difference in the substance use of males and females ($p = 0.017$, $df = 1$). These results, when paired with the previously analysed descriptive data, appear to confirm that significantly more male participants use substances than female participants.

4.2.2. Age Hypotheses

- Null Hypothesis: There is no significant difference in the substance use of participants of various ages.

Table 4.2.2 Age/Substance Use Difference Table

Ranks			
	Substance Use	N	Mean Rank
Age	No Substance Use	136	115.15
	Substance Use	95	117.21
	Total	231	

Test Statistics^{a,b}	
	Age
Chi-Square	.058
Df	1
Asymp. Sig.	.809
a. Kruskal Wallis Test	
b. Grouping Variable: Substance Use	

As indicated in the table above, the ages of the various participants reveal no significant difference in their substance use ($p = 0.809$, $df = 1$).

4.2.3. School Hypotheses

Due to the fact that the schools are based in various areas around Mitchell's Plain, it is important to establish that the geographical difference does not affect the rate of substance use in the participants.

- Null Hypothesis: There is no significant difference in the substance use of participants who attend different schools

Table 4.2.3.1 School/Substance Use Difference Table

Ranks			
	School	N	Mean Rank
Substance Use	School X	84	114.95
	School Y	75	128.21
	School Z	77	112.91
	Total	236	

Test Statistics^{a,b}	
	Substance Use
Chi-Square	3.114
Df	2
Asymp. Sig.	.211
a. Kruskal Wallis Test	
b. Grouping Variable: School	

The results confirm those produced when looking at the substance use severity of participants from the various schools. No significant difference is found between the substance use of participants who attend the different schools ($p = 0.211$, $df = 2$).

A closer look at the schools by looking at the substance use of participants within the two grades examined reveals the following results:

- Null Hypothesis: There is no significant difference in the substance use of participants in grades 10 and 11

Table 4.2.3.2 Grade/Substance Use Difference Table

Ranks			
	Grade	N	Mean Rank
Substance Use	Grade 10	101	121.62
	Grade 11	136	117.05
	Total	237	

Test Statistics^{a,b}	
	Substance Use
Chi-Square	.354
Df	1
Asymp. Sig.	.552
a. Kruskal Wallis Test	
b. Grouping Variable: Grade	

Substance use is shown to be not significantly different amongst participant in Grades 10 and 11 ($p = 0.552$, $df = 1$).

The current guardians with whom the participants are living is an important consideration, since it is these guardians on whom the participant are most likely to base their PAQ responses. It is therefore important to see whether there are any significant differences in the substance use of participants who have different guardians.

4.2.4. Guardians Hypothesis

A primary examination of the substance use of adolescents with different legal guardians is necessary to check whether there are any significant differences.

- Null Hypothesis: There is no significant differences in the substance use of participants' who have different legal guardians.

Table 4.2.4 Current Guardian/Substance Use Difference Table

Ranks			
	Current Guardian	N	Mean Rank
Substance Use	Mother only	63	113.38
	Father only	12	136.96
	Mother and Father	132	115.78
	Grandmother only	7	102.29
	Grandmother and Grandfather	4	98.12
	Adopted/Foster parents	4	127.25
	Other	11	143.14
	Total	233	

Test Statistics^{a,b}	
	Substance Use
Chi-Square	5.051
Df	6
Asymp. Sig.	.537
a. Kruskal Wallis Test	
b. Grouping Variable: Current Guardian	

Test results reveal that participant substance use does not differ depending on who their current guardian is ($p = 0.537$, $df = 6$). As was investigated when looking at the different schools, it is important to establish whether the geographical differences in where the participants live has an effect on whether or not they use substances.

4.2.5. Living Area Hypotheses

- Null Hypothesis: There is no significant differences in the substance use of participants who live in various areas.

Table 4.2.5 Living Area/Substance Use Difference Table

Ranks			
	Living Area	N	Mean Rank
Substance Use	Strandfontein	70	119.87
	Mitchell's Plain	102	110.58
	Other	60	122.63
	Total	232	

Test Statistics ^{a,b}	
	Substance Use
Chi-Square	2.022
Df	2
Asymp. Sig.	.364
a. Kruskal Wallis Test	
b. Grouping Variable: Living Area	

Confirming the substance use severity results, participants substance use does not differ significantly when considering the geographical differences in their living areas ($p = 0.364$, $df = 2$).

One of the primary focuses of this study is the perceived parenting styles found within the participant sample. The categorical results obtained from the PAQ were analysed in various ways to determine whether any significant differences were present to account for changes in participant substance use.

4.2.6. Perceived Parenting Styles Hypotheses

An examination of the perceived parenting styles of mothers and fathers reported by participants revealed the following results:

- Null Hypothesis: There is no significant difference between mothers' and fathers' perceived parenting styles.

Table 4.2.6.1 Adolescent Perceptions of Fathers'/Mothers' Parenting Styles Difference Tables

Ranks			
	Father's Parenting Style	N	Mean Rank
Mother's Parenting Style	Authoritative	75	68.44
	Authoritarian	66	86.50
	Permissive	16	97.56
	Total	157	

Test Statistics^{a,b}	
	Mother's Parenting Style
Chi-Square	12.318
Df	2
Asymp. Sig.	.002
a. Kruskal Wallis Test	
b. Grouping Variable: Father's Parenting Style	

Test results indicate that there is a significant difference in the perceived parenting styles of mothers and fathers ($p = 0.002$, $df = 2$). As this result may be of importance in determining the effect that perceived parenting styles have on adolescent substance use, it is necessary to perform a more in-depth analysis of how both mothers' and

fathers' parenting styles affect the participants' substance use. Taking a closer look at how the parenting styles of mothers and fathers, as categorised by the PAQ, differ with regards to the substance use of participants yields the following results.

- Null Hypothesis: There is no significant difference in participant substance use within the different categories of adolescent perceptions of mothers' parenting styles.

Table 4.2.6.2 Perception of Mothers' Parenting Styles/Substance Use Difference

Table

Ranks			
	Mother's Parenting Style	N	Mean Rank
Substance Use	Authoritative	139	109.32
	Authoritarian	74	115.00
	Permissive	9	116.33
	Total	222	

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Test Statistics^{a,b}	
	Substance Use
Chi-Square	.597
Df	2
Asymp. Sig.	.742
a. Kruskal Wallis Test	
b. Grouping Variable: Mother's Parenting Style	

The parenting styles perceived to be employed by mothers do not appear to have any effect on whether participants use or do not use substances ($p = 0.742$, $df = 2$).

The same exploration is performed examining the various categories of perceived parenting styles in fathers.

- Null Hypothesis: There is no significant difference in the substance use of adolescents who perceive their fathers to use different parenting styles.

Table 4.2.6.5 Perception of Fathers' Parenting Styles/Substance Use Difference Table

Ranks			
	Substance Use	N	Mean Rank
Father's Parenting Style	No Substance Use	98	75.66
	Substance Use	71	97.89
	Total	169	

Test Statistics^{a,b}	
	Father's Parenting Style
Chi-Square	10.332
Df	1
Asymp. Sig.	.001
a. Kruskal Wallis Test	
b. Grouping Variable: Substance Use	

Participants' use of substances differ significantly amongst the varying categories of parenting styles, perceived to be used by fathers ($p = 0.001$, $df = 1$).

4.3. Normality Testing

In order to determine the type of test used to examine whether any correlations exist between the perceived parenting styles of mothers and fathers and adolescent substance use, it is important to determine whether the distribution of the scores received from the questionnaires is normal. The Kolmogorov – Smirnov and Shapiro

– Wilk tests for Normality were performed on the scores obtained to determine the distribution of results. Score distributions that are indicated to be significant ($p < 0.05$) are considered to not have a normal distribution, therefore requiring a non parametric analysis in order to determine correlations.

4.3.1. Adolescent Perceptions of Mother’s Parenting Styles

Table 4.3.1.1 Mothers’ Authoritative Score Normality Table

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Authoritative Score Mother	.087	234	.000	.967	234	.000
a. Lilliefors Significance Correction						

The distribution of scores found in participant responses on Mothers’ Authoritative Parenting Style is not normal (df = 234; $p < 0.05$).

Table 4.3.1.2 Mothers’ Authoritarian Score Normality Table

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Authoritarian Score Mother	.056	234	.075	.994	234	.413
a. Lilliefors Significance Correction						

The scores obtained for Mothers’ Authoritarian Parenting Style reveal a normal distribution (df = 234).

Table 4.3.1.3 Mothers' Permissive Score Normality Table

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Permissive Score Mother	.073	234	.004	.991	234	.145
a. Lilliefors Significance Correction						

Mothers' Permissive Parenting Style scores reveal a distribution that is not normal when using the Kolmogorov – Smimov test (df = 234; p < 0.05), and normal when using the Shapiro - Wilk test.

4.3.2 Adolescent Perceptions of Father's Parenting Styles

Table 4.3.2.1 Fathers' Authoritative Score Normality Table

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Authoritative Score Father	.061	188	.082	.986	188	.055
a. Lilliefors Significance Correction						

Fathers' Authoritative Parenting Style scores indicate a normal distribution (df = 188).

Table 4.3.2.2 Fathers' Authoritarian Score Normality Table

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Authoritarian Score Father	.051	188	.200*	.991	188	.293
a. Lilliefors Significance Correction						
*. This is a lower bound of the true significance.						

Fathers' Authoritarian Parenting Style scores also reveal a normal distribution (df = 188).

Table 4.3.2.3 Fathers' Permissive Score Normality Table

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Permissive Score Father	.058	188	.200*	.993	188	.552
a. Lilliefors Significance Correction						
*. This is a lower bound of the true significance.						

Results obtained when assessing the normality of the score distribution for Fathers' Permissive Parenting Style is not significant, revealing a normal distribution (df = 188).

4.3.3 Adolescent Substance Use

Table 4.3.3.1 Males Substance Use Score Normality Table

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Substance Use Score (Males)	.272	85	.000	.694	85	.000
a. Lilliefors Significance Correction						

The distribution of score for male substance use reveals a not normal distribution (df = 85; $p < 0.05$).

Table 4.3.3.2 Female's Substance Use Score Normality Table

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Substance Use Score (Female)	.339	151	.000	.607	151	.000
a. Lilliefors Significance Correction						

A distribution that cannot be considered normal is also present in the substance use scores received from female participants (df = 151).

Table 4.3.3.3 Total Substance Use Score Normality Table

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Substance Use Score (Both)	.297	237	.000	.628	237	.000
a. Lilliefors Significance Correction						

When assessing the composite scores of males and females, a not normal distribution is also found (df = 237; $p < 0.05$).

Based on the varying normal and not normal distribution of all scores obtained around the participants' substance use, and specifically the varying nature of the distribution of mothers and fathers parenting style scores, a non-parametric means of correlation analysis was used. This was to determine whether a relationship existed between mothers and fathers various perceived parenting styles and the substance use of the participants. The chosen test used Spearman's coefficient for analysis.

4.4. Correlation Analysis

4.4.1 Correlation Analysis of Perceptions of Mother's Parenting Style and Adolescent Substance Use

- Null Hypothesis: There is no significant relationship between mother's perceived parenting styles (authoritative, authoritarian or permissive) and adolescent substance use

Table 4.4.1.1 Perceptions of Mother’s Authoritative Parenting Style/Adolescent

Substance Use Correlation Table

Correlations				
			Substance Use Score (Total)	Authoritative Score Mother
Spearman's rho	Substance Use Score (Total)	Correlation Coefficient	1.000	-.178**
		Sig. (2-tailed)	.	.007
		N	237	232
	Authoritative Score Mother	Correlation Coefficient	-.178**	1.000
		Sig. (2-tailed)	.007	.
		N	232	234
**. Correlation is significant at the 0.01 level (2-tailed).				

A significant negative correlation is obtained when correlating authoritative parenting style scores in mothers with adolescent substance use ($r = -0.178, p < 0.05$). It therefore appears that an authoritative parenting style in mothers has a significant relationship to the substance use of adolescents, appearing to reduce it.

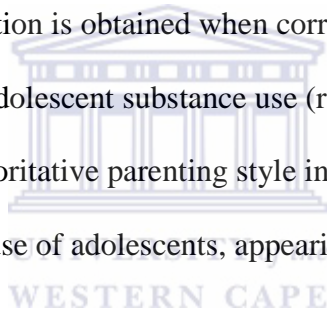


Table 4.4.1.2 Perceptions of Mothers’ Authoritarian Parenting Style/Adolescent

Substance Use Correlation Table

Correlations				
			Substance Use Score (Total)	Authoritarian Score Mother
Spearman's rho	Substance Use Score (Total)	Correlation Coefficient	1.000	-.087
		Sig. (2-tailed)	.	.185
		N	237	232
	Authoritarian Score Mother	Correlation Coefficient	-.087	1.000
		Sig. (2-tailed)	.185	.
		N	232	234

A weak negative correlation is observed when assessing perceived authoritarian parenting styles in mothers and the substance use of the participants. Based on the

lack of significance it appears that an authoritarian parenting style in mothers does not have any significant relationship to adolescent substance use ($r = -0.087$).

Table 4.4.1.3 perceptions of Mothers' Permissive Parenting Style/Adolescent Substance Use Correlation Table

Correlations				
			Substance Use Score (Total)	Permissive Score Mother
Spearman's rho	Substance Use Score (Total)	Correlation Coefficient	1.000	-.008
		Sig. (2-tailed)	.	.899
		N	237	232
	Permissive Score Mother	Correlation Coefficient	-.008	1.000
		Sig. (2-tailed)	.899	.
		N	232	234

A weak negative correlation exists between permissive parenting styles in mothers and the participants' substance use. The lack of significance indicates that permissive parenting styles in mothers does not appear to have any significant relationship to adolescent substance use ($r = -0.008$).

4.4.2 Correlation Analysis of Adolescent Perceptions of Fathers' Parenting Styles and Adolescent Substance Use

- Null Hypothesis: There is no significant relationship between perceptions of fathers' parenting styles (authoritative, authoritarian or permissive) and adolescent substance use.

Table 4.4.2.1 Perceptions of Fathers' Authoritative Parenting Style/Adolescent Substance Use Correlation Table

Correlations				
			Substance Use Score (Total)	Authoritative Score Father
Spearman's rho	Substance Use Score (Total)	Correlation Coefficient	1.000	-.162 [*]
		Sig. (2-tailed)	.	.027
		N	237	188
	Authoritative Score Father	Correlation Coefficient	-.162 [*]	1.000
		Sig. (2-tailed)	.027	.
		N	188	188
*. Correlation is significant at the 0.05 level (2-tailed).				

A significant negative correlation is found between authoritative parenting styles in fathers and the substance use reported by participants ($r = -0.162$, $p > 0.05$). It therefore does appear that perceived authoritative parenting styles in fathers has a significant relational effect on reducing substance use amongst adolescents.

Table 4.4.2.2 Perceptions of Fathers' Authoritarian Parenting Style/Adolescent Substance Use Correlation Table

Correlations				
			Substance Use Score (Total)	Authoritarian Score Father
Spearman's rho	Substance Use Score (Total)	Correlation Coefficient	1.000	-.067
		Sig. (2-tailed)	.	.364
		N	237	188
	Authoritarian Score Father	Correlation Coefficient	-.067	1.000
		Sig. (2-tailed)	.364	.
		N	188	188

Authoritarian parenting styles in fathers reveal a weak negative correlation that is not significant to participant substance use ($r = -0.067$). Perceived authoritarian parenting styles in fathers does not appear to have a significant relational effect on reducing substance use amongst adolescents

Table 4.4.2.3 Perceptions of Fathers' Permissive Parenting Style/Adolescent Substance Use Correlation Table

Correlations				
			Substance Use Score (Total)	Permissive Score Father
Spearman's rho	Substance Use Score (Total)	Correlation Coefficient	1.000	.116
		Sig. (2-tailed)	.	.113
		N	237	188
	Permissive Score Father	Correlation Coefficient	.116	1.000
		Sig. (2-tailed)	.113	.
		N	188	188

Permissive parenting styles in fathers show a weak positive correlation to the substance use revealed by participants ($r = 0.116$). Based on this and the lack of significance in the results, it can be concluded that perceived permissive parenting styles in fathers does not have a significant relationship to substance use amongst adolescents.

A secondary level of analysis was performed focussing specifically on the scores obtained for the different genders, since previous analysis showed a difference in the substance use of males and females.

4.4.3. Correlation Analysis of Male Adolescent Perceptions of Mothers'

Parenting Style and the Substance Use of Adolescent Males

- Null Hypothesis: There is no significant relationship between male adolescent perceptions of mother's parenting styles (authoritative, authoritarian or permissive) and the substance use of adolescent males.

Table 4.4.3.1 Perceptions of Mothers' Authoritative Parenting Style/Male Substance Use Correlation Table

Correlations				
			Substance Use Score (Males)	Authoritative Score Mother
Spearman's rho	Substance Use Score (Males)	Correlation Coefficient	1.000	-.200
		Sig. (2-tailed)	.	.070
		N	85	83
	Authoritative Score Mother	Correlation Coefficient	-.200	1.000
		Sig. (2-tailed)	.070	.
		N	83	234

A weak negative correlation that is not significant is present when testing the relationship between perceived authoritative parenting styles in mothers and male substance use ($r = -0.200$).

Table 4.4.3.2 Perceptions of Mother’s Authoritarian Parenting Style/Male

Substance Use Correlation Table

Correlations				
			Substance Use Score (Males)	Authoritarian Score Mother
Spearman's rho	Substance Use Score (Males)	Correlation Coefficient	1.000	-.061
		Sig. (2-tailed)	.	.581
		N	85	83
	Authoritarian Score Mother	Correlation Coefficient	-.061	1.000
		Sig. (2-tailed)	.581	.
		N	83	234

Authoritarian parenting styles in mothers indicated a weak negative correlation with the substance use of male participants that is not significant ($r = -0.061$; $p = 0.581$).

Perceived authoritarian parenting styles in mothers do not appear to have a significant relational effect on substance use amongst adolescent males.

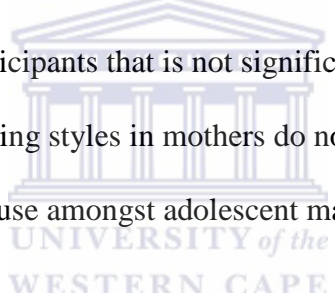


Table 4.4.3.3 Perceptions of Mothers’ Permissive Parenting Style/Male

Substance Use Correlation Table

Correlations				
			Substance Use Score (Males)	Permissive Score Mother
Spearman's rho	Substance Use Score (Males)	Correlation Coefficient	1.000	.036
		Sig. (2-tailed)	.	.750
		N	85	83
	Permissive Score Mother	Correlation Coefficient	.036	1.000
		Sig. (2-tailed)	.750	.
		N	83	234

A weak and not significant positive correlation is present between perceived permissive parenting styles in mothers and male participants' substance use, revealing no significant relationship to substance use amongst adolescent males ($r = 0.036$).

4.4.4. Correlation Analysis of perceptions of Fathers' Parenting Style and the Substance Use of Adolescent Males

- Null Hypothesis: There is no significant relationship between adolescent male perceptions of fathers' parenting styles (authoritative, authoritarian or permissive) and the substance use of adolescent males.

Table 4.4.4.1 Perceptions of Fathers' Authoritative Parenting Style/Male Substance Use Correlation Table

Correlations				
			Substance Use Score (Males)	Authoritative Score Father
Spearman's rho	Substance Use Score (Males)	Correlation Coefficient	1.000	-.294*
		Sig. (2-tailed)	.	.016
		N	85	67
	Authoritative Score Father	Correlation Coefficient	-.294*	1.000
		Sig. (2-tailed)	.016	.
		N	67	188
*. Correlation is significant at the 0.05 level (2-tailed).				

A significant negative correlation is present between perceived authoritative parenting styles in fathers and male participants' substance use ($r = - 0.294$; $p < 0.05$). Therefore it appears that perceived authoritative parenting styles in fathers does reduce substance use amongst adolescent males, proving that a relationship does exist.

Table 4.4.4.2 Perceptions of Fathers' Authoritarian Parenting Style/Male

Substance Use Correlation Table

Correlations				
			Substance Use Score (Males)	Authoritarian Score Father
Spearman's rho	Substance Use Score (Males)	Correlation Coefficient	1.000	-.048
		Sig. (2-tailed)	.	.700
		N	85	67
	Authoritarian Score Father	Correlation Coefficient	-.048	1.000
		Sig. (2-tailed)	.700	.
		N	67	188

A weak negative correlation is observed between authoritarian parenting styles in fathers and substance use in male participants ($r = -0.048$). The lack of significance reveals that perceived authoritarian parenting styles does not have a significant relational effect on substance use amongst adolescent males.

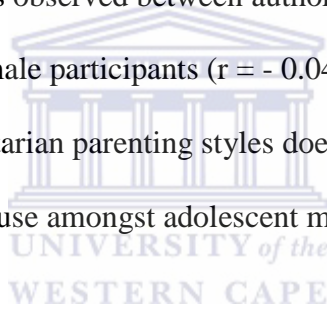


Table 4.4.4.3 Perceptions of Fathers' Permissive Parenting Style/Male Substance

Use Correlation Table

Correlations				
			Substance Use Score (Males)	Permissive Score Father
Spearman's rho	Substance Use Score (Males)	Correlation Coefficient	1.000	.047
		Sig. (2-tailed)	.	.705
		N	85	67
	Permissive Score Father	Correlation Coefficient	.047	1.000
		Sig. (2-tailed)	.705	.
		N	67	188

Permissive parenting styles in fathers indicated a weak positive correlation that is not significant to the substance use in adolescent males ($r = 0.047$). Therefore, it is

indicated that perceived permissive parenting styles in fathers does not have a relationship to substance use amongst adolescent males.

4.4.5. Correlation Analysis of Adolescent Perceptions of Mothers’ Parenting Style and the Substance Use of Adolescent Females

- Null Hypothesis: There is no significant relationship between adolescent female perceptions of mothers’ parenting style (authoritative, authoritarian or permissive) and the substance use of adolescent females.

Table 4.4.5.1 Perceptions of Mothers’ Authoritative Parenting Style/Female Substance Use Correlation Table

Correlations				
			Substance Use Score (Female)	Authoritative Score Mother
Spearman's rho	Substance Use Score (Female)	Correlation Coefficient	1.000	-.150
		Sig. (2-tailed)	.	.068
		N	151	148
	Authoritative Score Mother	Correlation Coefficient	-.150	1.000
		Sig. (2-tailed)	.068	.
		N	148	234

A weak negative correlation that is not significant exists between perceived authoritative parenting styles in mothers and the substance use scores of female participants ($r = - 0.150$). From this, it can be extrapolated that perceived authoritative parenting styles in mothers does not have a significant relationship to substance use amongst adolescent females.

Table 4.4.5.2 Perceptions of Mothers' Authoritarian Parenting Style/Female

Substance Use Correlation Table

Correlations				
			Substance Use Score (Female)	Authoritarian Score Mother
Spearman's rho	Substance Use Score (Female)	Correlation Coefficient	1.000	-.128
		Sig. (2-tailed)	.	.122
		N	151	148
	Authoritarian Score Mother	Correlation Coefficient	-.128	1.000
		Sig. (2-tailed)	.122	.
		N	148	234

A weak negative correlation is present between perceived authoritarian parenting style scores in mothers and female participants' substance use scores that is not significant. This reveals that mothers' perceived authoritarian parenting styles does not have any significant relationship to substance use amongst adolescent females ($r = -0.128$).

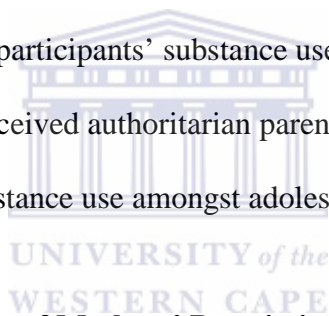


Table 4.4.5.3 Perceptions of Mothers' Permissive Parenting Style/Female

Substance Use Correlation Table

Correlations				
			Substance Use Score (Female)	Permissive Score Mother
Spearman's rho	Substance Use Score (Female)	Correlation Coefficient	1.000	-.051
		Sig. (2-tailed)	.	.540
		N	151	148
	Permissive Score Mother	Correlation Coefficient	-.051	1.000
		Sig. (2-tailed)	.540	.
		N	148	234

A weak negative correlation that is found between perceived permissive parenting styles in mothers and the substance use of female participants revealing that there is no significant relationship between these variables ($r = -0.051$).

4.4.6. Correlation Analysis of Adolescent Perceptions of Fathers’ Parenting Styles and the Substance Use of Adolescent Females

- Null Hypothesis: There is no significant relationship between adolescent female perceptions of fathers’ parenting styles (authoritative, authoritarian or permissive) and the substance use of adolescent females.

Table 4.4.6.1 Perceptions of Fathers’ Authoritative Parenting Style/Female Substance Use Correlation Table

Correlations				
			Substance Use Score (Female)	Authoritative Score Father
Spearman's rho	Substance Use Score (Female)	Correlation Coefficient	1.000	-.104
		Sig. (2-tailed)	.	.255
		N	151	121
	Authoritative Score Father	Correlation Coefficient	-.104	1.000
		Sig. (2-tailed)	.255	.
		N	121	188

A weak negative correlation that is not significant exists between perceived authoritative parenting styles in fathers and female participants’ substance use ($r = -0.104$). Based on this, there does not appear to be a significant relationship between substance use amongst adolescent females and perceived authoritative parenting styles in fathers.

Table 4.4.6.2 Perceptions of Fathers' Authoritarian Parenting Style/Female

Substance Use Correlation Table

Correlations				
			Substance Use Score (Female)	Authoritarian Score Father
Spearman's rho	Substance Use Score (Female)	Correlation Coefficient	1.000	-.091
		Sig. (2-tailed)	.	.318
		N	151	121
	Authoritarian Score Father	Correlation Coefficient	-.091	1.000
		Sig. (2-tailed)	.318	.
		N	121	188

Perceived authoritarian parenting styles in fathers indicated a weak negative correlation to the substance use of female participants that is not significant ($r = -0.091$). Perceived authoritarian parenting styles in fathers therefore do not have a significant relationship to substance use amongst adolescent females.

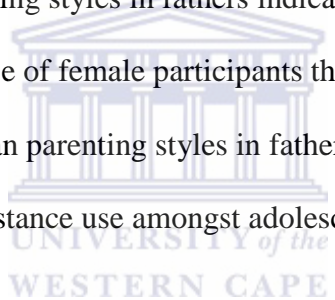


Table 4.4.6.3 Perceptions of Fathers' Permissive Parenting Style/Female

Substance Use Correlation Table

Correlations				
			Substance Use Score (Female)	Permissive Score Father
Spearman's rho	Substance Use Score (Female)	Correlation Coefficient	1.000	.159
		Sig. (2-tailed)	.	.082
		N	151	121
	Permissive Score Father	Correlation Coefficient	.159	1.000
		Sig. (2-tailed)	.082	.
		N	121	188

A weak positive correlation that is not significant is found between the perceived permissive parenting style scores of fathers and the substance use scores of female participants ($r = 0.159$). Based on this, it appears that there is no significant relationship between the substance use of adolescent females and perceived permissive parenting styles of fathers.

4.5 Summary of Test Results

Based on the aforementioned results above it can be indicated that:

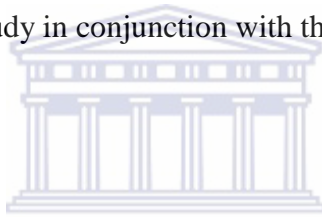
- A significant difference is present in the rates of substance use of males and females.
- A significant difference is found between mothers' parenting styles and fathers' parenting styles, when compared amongst the various parenting styles (as defined by the PAQ).
- Authoritative parenting styles in mothers are significantly related to a reduction in adolescent substance use.
- Authoritative parenting styles in fathers are significantly related to a reduction in adolescent substance use.
- Specifically, father's who are perceived to have an authoritative parenting style significantly reduce the rate of substance use in adolescent males.

Chapter Five

Discussion of Results

5.1 Introduction

The study established that within a South African population of adolescents, drawn from an area in Cape Town known for having a high rate of substance abuse, authoritative parenting styles as perceived by those adolescents appears to be related to a lower rate of adolescent substance use. This is an important finding in that the inference drawn from it is that a prevention strategy aimed at working with parenting styles may assist in the reduction of adolescent substance use within this high risk area and possibly the rest of South Africa. It is however, important to examine the results obtained within this study in conjunction with the literature and thereby locate it within a frame of research.



An examination of these results within the framework of national and international studies namely parenting styles and adolescent perceptions thereof; and substance use, was necessary in order to gain a better understanding of the results obtained in this study. The literature scrutinised earlier will now be discussed in relation to the results obtained within this study, in order to further understand the present findings.

5.2 Consensus with the Literature

A consistent finding drawn from this study is that the employment of authoritative parenting styles by parents appear to be related to lower rates of adolescent substance use. This result concurs with most research that measures the relationship between parenting styles and adolescent outcome. Retrospectively examining the original research done by Baumrind (1991), it was indicated that when parents engage in

authoritative parenting styles, their adolescents are less likely to engage in substance use. This research was confirmed by Newman (2008), who found that authoritative parenting styles in general were associated with more positive adolescent wellbeing. Studies focussing on the link between parenting styles and the development of positive self concept in adolescents, all stress the importance of an Authoritative Parenting Style for increased psychological health in adolescents (Lee *et a*, 2006 & Mupinga *et al*, 2002). These studies found the same relationship between authoritative parenting styles and a decrease in negative adolescent outcome, as was found in this study.

Shifting the focus to perceived parenting styles, this study once again confirms what has been noted within the literature. Adolescents who perceive their parents behaving towards them in a way that conforms to the principles of authoritative parenting styles, as observed by Donenberg *et al* (2002), indicated a reduced level of engagement. In particular hazardous behaviour, such as at-risk sexual practices and earlier sexual debut, as researched by Donenberg *et al* (2002), or substance use was explored in this study. This association between perceived authoritative parenting styles and reduced adolescent at-risk behaviour, of which substance use is one, conforms with conclusions drawn by other researchers (Brand *et al*, 2009; Jackson – Newsom *et al*, 2008 & McKinney *et al*, 2008).

Generally literature indicates that parents who are perceived to apply an authoritative parenting style when managing the care of their children are more likely to have adolescents who are well adjusted with effective coping skills; and a lower rate of mental illness, as indicated by McKinney *et al* (2008) and Brand *et al* (2009). These

studies affirm the results obtained in the present study, lending credence to the conclusion drawn that perceived authoritative parenting styles are related to a lower rate of adolescent substance use. Not all results obtained around the associations between the various perceived parenting styles and adolescent substance use were expected, with some results being incongruent with what has thus far been described in the literature.

5.3 Incongruity with the Literature

Baumrind (1991), in her study focussing on the effect that parenting styles have on adolescent substance use, mentions that parents who are shown to use permissive or authoritarian parenting styles are more likely to have adolescents who use substances. Results from this study, however, indicated that there is no significant relationship between perceived permissive or authoritarian parenting styles and adolescent substance use. The observed results reveal a weak positive relationship between permissive parenting styles and the substance use of males, and in the case of mothers, a weak negative relationship is observed between adolescent substance use and a permissive parenting style. The lack of significance in all of these relationships indicates that although the relationship is present, it has no effect on increasing or decreasing adolescent substance use within this sample. A difference in the effect of perceived parenting styles and gender was also noticed in that when focussing specifically on the substance use of adolescent females, it appears that none of the perceived parenting styles has an effect on substance use. However, when the composite group of substance use was examined, the relational trend between authoritative parenting styles and reduced substance use are apparent.

This finding contrasts other researchers who have found in their forays into the links between parenting styles, whether perceived or otherwise. Kandel (1990), when researching the subject matter of parenting styles and adolescent substance use, states empirically that authoritarian and permissive parenting styles are linked to an increase in substance use in adolescents. These findings are confirmed by numerous other researchers such as Newman *et al* (2008), Lee *et al* (2006), Mupinga *et al* (2002), and more recently by Brand *et al* (2009). It is possible however, when focussing on the sample selected for this study as well as the general literature around adolescent substance use, to develop explanations for the difference in the results obtained in this study.

5.4 Alternative Explanations

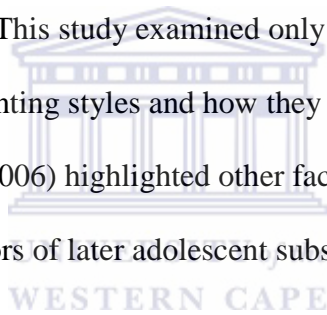
5.4.1 Sample Demographics

When scrutinising the sample, it became evident that the rate of authoritarian and permissive parenting styles is lower than the rate of authoritative parenting styles. This decreases the power of the study, thereby with it the effect size. This means that the probability of finding a significant correlation is greatly reduced. This is not a flaw in the research design, as the study elected to examine a very specific sample group. Based on the results, it can be deduced that a significant number of participants who have reached the upper echelons of High School education, namely Grade 10's and 11's came from a supportive parenting structure. This includes the optimal authoritative parenting style, which has previously been implicated as a protective factor for adolescent well being (Brand *et al*, 2009; Lee *et al*, 2006; Mupinga *et al*, 2002 & Newman *et al*, 2008). It can further be inferred that those adolescents who may have dropped out of school at this stage due to accelerated substance use or other reasons, may have perceived their parents as having less favourable permissive or

authoritarian parenting styles. As a sample of adolescent school dropouts was not the focus of this study, it is not possible to predict empirically the responses of this hypothetical sample group.

5.4.2 Other Factors Affecting Adolescent Substance Use

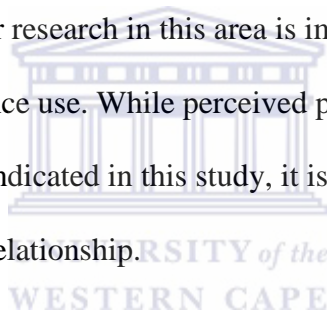
It is worth noting that numerous other factors have been mentioned as having an impact on adolescent substance use that could detract from the outcome that parenting styles may have on adolescent substance use (De Genna *et al*, 2009; Fergusson *et al*, 2008; Jaszyna-Gasior *et al*, 2009 & Von Dieman *et al*, 2008). Brooke *et al* (2006) defined parenting as one of many distal factors that could be identified as an indicator for adolescent substance use. This study examined only one aspect of that distal factor, namely perceived parenting styles and how they are associated with adolescent substance use. Brooke *et al* (2006) highlighted other factors, both proximal and distal, that could function as indicators of later adolescent substance use.



5.4.2.1 Gender and Adolescent Substance Use

As has been reflected in the literature, gender appears to play an important role in adolescent substance use. Jaszyna-Gasior (2009) linked substance use in female adolescents to an early onset of puberty, while Von Dieman *et al* (2008) used an increase in impulsivity to explain an increase in substance use in adolescent males. What these studies serve to emphasise is that there are varying reasons why male and female adolescents choose to start using substances. Extrapolating further from the results obtained in the study, the significantly higher proportion of female participants could indicate that female adolescents within the Mitchell's Plain area are more likely to remain in high school. Therefore, they are more likely to complete their education

than male adolescents. Male adolescents within the Western Cape were also found to be more likely to use substances, as indicated by the results of this study and research completed by Cerff (2008). This could be indicative of a higher rate of impulsivity within South African male adolescents, as seen in research by Von Dieman *et al* (2008). It is noteworthy that both Jeanneret (2008) and Standing (2004) allude to males being drawn into gang activity and targeted by gang leaders. Based on this, a possible hypothesis can be developed that male adolescents with higher impulsivity who are lured into gang activity and substance use may be more likely to become a school dropout. This could explain the significantly higher rate of female adolescents in Grade 10 and 11. While it is not possible to confirm this conclusion using results from the present study, further research in this area is important in order to further understand adolescent substance use. While perceived parenting styles are a factor in adolescent substance use, as indicated in this study, it is not the only element that can be used to illustrate a causal relationship.



5.4.2.2 Predisposing Factors of Adolescent Substance Use

Base on the reviewed literature, various predisposing factors have been related to adolescent substance use. Perepletchikova *et al* (2008) established a relationship between psychiatric illness and adolescent alcohol use in their study, showing that other psychiatric disorders were often found to be comorbid with an onset of alcohol use. Fergusson *et al* (2008) found a link between adjustment problems, conduct difficulties and substance use later on. Mason *et al* (2008) concluded that based on the interwoven nature of adolescent substance use and various mental illnesses, including conduct disorder and depression, multiple levels of analysis was required to develop a holistic understanding thereof. Perron & Howard (2008) focussed on how at-risk

adolescents perceive using substances and their later predilection to use. Although the results of this study does not reveal for certain that the presence of a perceived authoritarian or permissive parenting style can be definitely linked to adolescent substance use, the absence of an authoritative parenting style may cause an increased predisposing risk for adolescent substance use. Perceived authoritative parenting style does however appear to fall then firmly within the protective factor realm for this particular sample of adolescents.

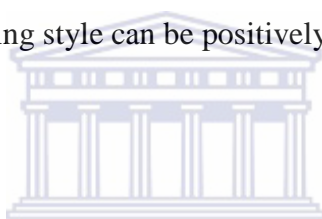
As discussed above, there are many possible factors that can lead to adolescent substance use. While the results of this study have not conclusively established that any of the perceived parenting styles are related to an increase in adolescent substance use, it has been conclusively established that perceived authoritative parenting styles are related to a lower rate of adolescent substance use. While the findings of this study are modest, they provide an important insight, that a perceived authoritative parenting style may be an important preventative measure for adolescent substance use within Mitchell's Plain, and possibly South Africa.

Chapter Six

Conclusion and Recommendations

6.1 Introduction

This study aimed to examine whether there is an association between perceived parenting styles and adolescent substance use. To determine this, three schools within the Mitchell's Plain District of Cape Town were requested to allow their Grade 10 and 11 learners to participate in the study. The intention was to gain insight into whether perceived parenting styles had any association to adolescent substance use. Results indicated that perceived authoritative parenting styles indicated a significant negative correlation to adolescent substance use in general. From this it can be inferred that a perceived authoritative parenting style can be positively associated with a reduction in adolescent substance use.



In summary, what these studies and others reveal is that there are numerous factors related to the use of substances by adolescents that are not related to parenting styles or adolescent perceptions. The complicated nature of adolescent substance use means that it is not possible to isolate one specific aspect, and draw on that as the sole explanation for this phenomenon. This study sought to examine one aspect of the many areas that have attempted to explain adolescent substance use, specifically the association between perceived parenting styles and adolescent substance use. Findings indicated that an association is present in that authoritative parenting styles are shown to be related to a reduction in the general substance use of adolescents. It can therefore be concluded that a perceived authoritative parenting style could play an important preventative role for adolescent substance use.

6.2 Limitations to the Study

The study did not focus on the alcohol use of the adolescents who chose to participate. Alcohol use, as has been mentioned within the literature, is a complex part of the history of South Africans and its relationship with addiction. When examining an adolescent population, it is important to acknowledge that for those who fall under the age of 18 years, alcohol use is illegal. This has been explored by various researchers, and as with this study, as a primary substance indulged in by underage minors.

This study also yielded a significantly higher rate of parents who were perceived to use authoritative parenting styles than parents who were perceived to use either authoritarian or permissive parenting styles. Extrapolating from research completed by Newman *et al* (2008) of parenting styles at they relate to adolescent well being, it was speculated that a sample of recently well functioning group of school going adolescents who were close to completing their high school education would be most likely to have parents who used an authoritative parenting style. Due to this, a lack of participants who perceived their parents to use any of the other parenting styles meant an inability to establish whether any significant relationship existed between the other parenting styles examined and adolescent substance use. This limited generalisation of the study to a larger population of adolescent substance users.

Another limitation is the significant gender bias of the study, due to the absence of adolescent male participants in Grade 10 and 11. This limited the data collected on male adolescent perceptions of parenting styles and how this associated with substance use. A sample consisting of equal male and female participants would have

improved on the results obtained. In addition to this, the limiting of the sample group to one specific area, namely Mitchell's Plain, as well as the sample size chosen, also limited the degree to which the result can be generalised to the greater South African population.

6.3 Recommendations

Based on the results found within this study, the following recommendations are postulated:

- Any intervention made around the area of adolescent substance use should consider the parenting style employed by the guardians of the adolescent as well as the adolescent's perception of this parenting style. This may have some impact on the precipitation, maintenance and prognosis for recovery for adolescent substance abusers.
- Psycho-education around the protective qualities of using an authoritative parenting style should be introduced to parenting interventions as a form of preventative measure around adolescent substance use. This could be provided at primary health care clinics and through schools in an effort to curb adolescent substance use.
- Further research around the areas examined within this study should include an assessment of alcohol use and target a broader adolescent base in order to obtain a clearer representation of the association that permissive and authoritarian parenting styles could have on adolescent substance use.

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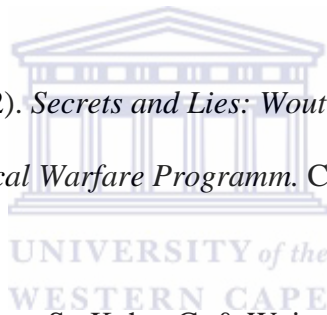
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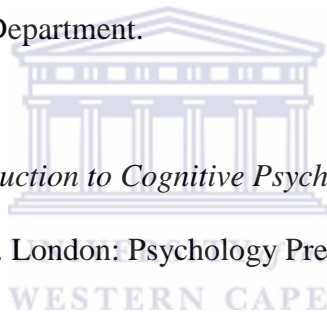
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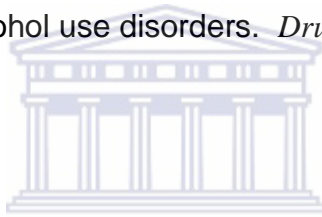
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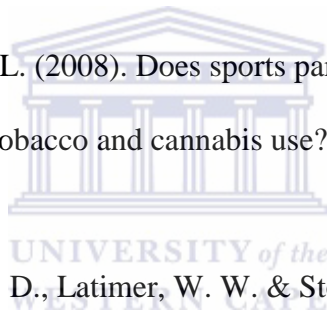
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PART A

Please fill out this questionnaire. The information provided will be used by the researcher to further examine the results found within the other questionnaires. Your confidentiality is insured as this information is provided anonymously.

TODAY'S DATE: _____

DATE OF BIRTH: _____ GENDER: _____

SCHOOL: _____ GRADE: _____

AREA YOU LIVE IN: _____

HOME LANGUAGE: _____

MOTHER'S PROFESSION: _____

FATHER'S PROFESSION: _____

MOTHER'S HIGHEST GRADE COMPLETED IN SCHOOL: _____

FATHER'S HIGHEST GRADE COMPLETED IN SCHOOL: _____

WHO DO YOU CURRENTLY LIVE WITH (CROSS OFF):

<input type="checkbox"/>	MOTHER ONLY
<input type="checkbox"/>	FATHER ONLY
<input type="checkbox"/>	MOTHER AND FATHER
<input type="checkbox"/>	GRANDMOTHER ONLY
<input type="checkbox"/>	GRANDFATHER ONLY
<input type="checkbox"/>	GRANDMOTHER AND GRANDFATHER
<input type="checkbox"/>	ADOPTED/FOSTER PARENTS
<input type="checkbox"/>	OTHER (SPECIFY)

PART B

Here are some questions about your parents. Please follow the instructions and answer as correctly as possible.

Instructions: For each of the following statements, circle the number of the 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*) that best describes how that statement applies to you and your mother. Try to read and think about each statement as it applies to you and your mother during your years of growing up at home. There are no right or wrong answers, so don't spend a lot of time on any one item. We are looking for your overall impression regarding each statement. Be sure not to omit any items.

- 1 = Strongly disagree
- 2 = Disagree
- 3 = Neither agree nor disagree
- 4 = Agree
- 5 = Strongly Agree

1.	While I was growing up my mother felt that in a well-run home the children should have their way in the family as often as the parents do.	1 2 3 4 5
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2.	Even if her children didn't agree with her, my mother felt that it was for our own good if we were forced to conform to what she thought was right.	1 2 3 4 5
3.	Whenever my mother told me to do something as I was growing up, she expected me to do it immediately without asking any questions.	1 2 3 4 5
4.	As I was growing up, once family policy had been established, my mother discussed the reasoning behind the policy with the children in the family.	1 2 3 4 5
5.	My mother has always encouraged verbal give-and-take whenever I have felt that family rules and restrictions were unreasonable	1 2 3 4 5
6.	My mother has always felt that what her children need is to be free to make up their own minds and to do what they want to do, even if this does not agree with what their parents might want.	1 2 3 4 5
7.	As I was growing up my mother did not allow me to question any decision she had made.	1 2 3 4 5
8.	As I was growing up my mother directed the activities and decisions of the children in the family through reasoning and discipline.	1 2 3 4 5
9.	My mother has always felt that more force should be used by parents in order to get their children to behave the way they are supposed to.	1 2 3 4 5
10.	As I was growing up my mother did <i>not</i> feel that I needed to obey rules and regulations of behavior simply because someone in authority had established them.	1 2 3 4 5
11.	As I was growing up I knew what my mother expected of me in my family, but I also felt free to discuss those expectations with my mother when I felt that they were unreasonable.	1 2 3 4 5
12.	My mother felt that wise parents should teach their children early just who is boss in the family.	1 2 3 4 5
13.	As I was growing up, my mother seldom gave me expectations and guidelines for my behaviour	1 2 3 4 5
14.	Most of the time as I was growing up my mother did what the children in the family wanted when making family decisions.	1 2 3 4 5
15.	As the children in my family were growing up, my mother consistently gave us direction and guidance in rational and objective ways.	1 2 3 4 5
16.	As I was growing up my mother would get very upset if I tried to disagree with her.	1 2 3 4 5
17.	My mother feels that most problems in society would be solved if parents would <i>not</i> restrict their children's activities, decisions, and desires as they are growing up.	1 2 3 4 5
18.	As I was growing up my mother let me know what behavior she expected of me, and if I didn't meet those expectations, she punished me.	1 2 3 4 5
19.	As I was growing up my mother allowed me to decide most things for myself without a lot of direction from her.	1 2 3 4 5
20.	As I was growing up my mother took the children's opinions into consideration when making family decisions, but she would not decide for something simply because the children wanted it.	1 2 3 4 5
21.	My mother did not view herself as responsible for directing and guiding my behavior as I was growing up.	1 2 3 4 5
22.	My mother had clear standards of behavior for the children in our home as I was growing up, but she was willing to adjust those standards to the needs of each of the individual children in the family.	1 2 3 4 5
23.	My mother gave me direction for my behavior and activities as I was growing up and she expected me to follow her direction, but she was always willing to listen to my concerns and to discuss that direction with me.	1 2 3 4 5
24.	As I was growing up my mother allowed me to form my own point of view on family matters and she generally allowed me to decide for	1 2 3 4 5

	myself what I was going to do.	
25.	My mother has always felt that most problems in society would be solved if we could get parents to strictly and forcibly deal with their children when they don't do what they are supposed to as they are growing up.	1 2 3 4 5
26.	As I was growing up my mother often told me exactly what she wanted me to do and how she expected me to do it.	1 2 3 4 5
27.	As I was growing up my mother gave me clear direction for my behaviors and activities, but she was also understanding when I disagreed with her.	1 2 3 4 5
28.	As I was growing up my mother did not direct the behaviors, activities, and desires of the children in the family.	1 2 3 4 5
29.	As I was growing up I knew what my mother expected of me in the family and she insisted that I conform to those expectations simply out of respect for her authority.	1 2 3 4 5
30.	As I was growing up, if my mother made a decision in the family that hurt me, she was willing to discuss that decision with me and to admit it if she had made a mistake.	1 2 3 4 5

Instructions: For each of the following statements, circle the number of the 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*) that best describes how that statement applies to you and your father. Try to read and think about each statement as it applies to you and your father during your years of growing up at home. There are no right or wrong answers, so don't spend a lot of time on any one item. We are looking for your overall impression regarding each statement. Be sure not to omit any items.

- 1 = Strongly disagree
- 2 = Disagree
- 3 = Neither agree nor disagree
- 4 = Agree
- 5 = Strongly Agree



1.	While I was growing up my father felt that in a well-run home the children should have their way in the family as often as the parents do.	1 2 3 4 5
2.	Even if his children didn't agree with him, my father felt that it was for our own good if we were forced to conform to what he thought was right.	1 2 3 4 5
3.	Whenever my father told me to do something as I was growing up, he expected me to do it immediately without asking any questions.	1 2 3 4 5
4.	As I was growing up, once family policy had been established, my father discussed the reasoning behind the policy with the children in the family.	1 2 3 4 5
5.	My father has always encouraged verbal give-and-take whenever I have felt that family rules and restrictions were unreasonable	1 2 3 4 5
6.	My father has always felt that what his children need is to be free to make up their own minds and to do what they want to do, even if this does not agree with what their parents might want.	1 2 3 4 5
7.	As I was growing up my father did not allow me to question any decision he had made.	1 2 3 4 5
8.	As I was growing up my father directed the activities and decisions of the children in the family through reasoning and discipline.	1 2 3 4 5
9.	My father has always felt that more force should be used by parents in order to get their children to behave the way they are supposed to.	1 2 3 4 5
10.	As I was growing up my father did <i>not</i> feel that I needed to obey rules and regulations of behavior simply because someone in authority had established them.	1 2 3 4 5
11.	As I was growing up I knew what my father expected of me in my family,	

	but I also felt free to discuss those expectations with my father when I felt that they were unreasonable.	1 2 3 4 5
12.	My father felt that wise parents should teach their children early just who is boss in the family.	1 2 3 4 5
13.	As I was growing up, my father seldom gave me expectations and guidelines for my behaviour	1 2 3 4 5
14.	Most of the time as I was growing up my father did what the children in the family wanted when making family decisions.	1 2 3 4 5
15.	As the children in my family were growing up, my father consistently gave us direction and guidance in rational and objective ways.	1 2 3 4 5
16.	As I was growing up my father would get very upset if I tried to disagree with him.	1 2 3 4 5
17.	My father feels that most problems in society would be solved if parents would <i>not</i> restrict their children's activities, decisions, and desires as they are growing up.	1 2 3 4 5
18.	As I was growing up my father let me know what behavior he expected of me, and if I didn't meet those expectations, he punished me.	1 2 3 4 5
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30.	As I was growing up, if my father made a decision in the family that hurt me, he was willing to discuss that decision with me and to admit it if he had made a mistake.	1 2 3 4 5

Here are a few questions about drugs. Please answer as correctly and honestly as possible by making a cross next to which answer is right for you.

1.	How often do you use drugs other than alcohol?		Never
			Once a month or less often
			2-4 times a month

		2-3 times a week
		4 times a week or more often
2.	Do you use more than one type of drug on the same occasion?	Never
		Once a month or less often
		2-4 times a month
		2-3 times a week
		4 times a week or more often
3.	How many times do you take drugs on a typical day when you use drugs?	0
		1-2
		3-4
		5-6
		7 or more
4.	How often are you influenced heavily by drugs?	Never
		Less often than once a month
		Every month
		Every week
		Daily or almost every day
5.	Over the past year, have you felt that your longing for drugs was so strong that you could not resist it?	Never
		Less often than once a month
		Every month
		Every week
		Daily or almost every day
6.	Has it happened, over the past year, that you have not been able to stop taking drugs once you started?	Never
		Less often than once a month
		Every month
		Every week
		Daily or almost every day
7.	How often over the past year have you taken drugs and then neglected to do something you should have done?	Never
		Less often than once a month
		Every month
		Every week
		Daily or almost every day
8.	How often over the past year have you needed to take a drug the morning after heavy drug use the day before?	Never
		Less often than once a month
		Every month
		Every week
		Daily or almost every day
9.	How often over the past year have you had guilt feelings or a bad conscience because you used drugs?	Never
		Less often than once a month
		Every month
		Every week
		Daily or almost every day
10.	Have you or anyone else been hurt (mentally or physically) because you used drugs?	No
		Yes, but not over the past year
		Yes, over the past year
11.	Has a relative or a friend, a doctor or a nurse, or anyone else, been worried about your drug use or said to you that you should stop using drugs?	No
		Yes, but not over the past year
		Yes, over the past year



UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-959, Fax: 27 21-959

E-mail:

INFORMATION SHEET

Project Title: The Association between Perceived Parenting Styles and Adolescent Substance Use

What is this study about?

This is a research project being conducted by Roxanne Henry, a Masters student in Clinical Psychology at the University of the Western Cape. We are inviting you to participate in this research project because you, as Grade 10 or 11 learner, falls within the grouping that this research is most interested in. The purpose of this research project is to examine the association between perceived parenting styles and adolescent substance use in order to try and establish whether any particular parenting style increases or decreases adolescent substance use.

What will I be asked to do if I agree to participate?

You will be asked to fill in a questionnaire. The first part of the questionnaire will be questions relating to you biographical information, for example your age, gender, home language, as well as a few questions about you and your family. The second part of the questionnaire will ask questions about your parents. You will be asked to rate your responses to each statement on a 5 point scale depending on how much you agree or disagree with each statement. Questions will also be asked about your level of drug use or lack thereof. You will be required to rate your drug use on a series of scales that run from 0/never to a maximum score. The questionnaires will be administered to you in your classroom during a period that was agreed to by your school and should not take longer than 45 minutes to fill in.

Would my participation in this study be kept confidential?

We will do our best to keep your personal information confidential. To help protect your confidentiality, the identities of all who fill in the questionnaires will be kept anonymous. You will not be required to fill in your name, and no data that can identify you will be requested from you. Each questionnaire will be coded with a individual number in order to ensure that none of the information is mixed up, but this number will not be linked to you personally. If we write a report or article about this research project, your identity and that of your school will be protected to the maximum extent possible.

What are the risks of this research?

There are no known risks associated with participating in this research project.

What are the benefits of this research?

This research is not designed to help you personally, but the results may help the investigator learn more about the associations between perceived parenting styles and adolescent substance. We hope that, in the future, other people might benefit from this study through improved understanding of, this area of research and that the conclusions drawn from this research can be used to assist parents in utilising effective parenting styles thereby reducing the risk of adolescent substance use.

Do I have to be in this research and may I stop participating at any time?

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify. Participation in the research is not a course requirement.

Is any assistance available if I am negatively affected by participating in this study?

It may happen that while you are filling out the questionnaires, you realise that your drug use is a bigger problem than you originally thought, or you feel that it may be out of control. In order to assist you if you decide you may need some help with this, an information pamphlet listing the various places close to you that you can receive assistance will be provided. Alternatively, you can request to speak with the researcher privately if you would like some assistance in being referred to an appropriate support structure.

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What if I have questions?

This research is being conducted by Roxanne Henry at the University of the Western Cape. If you have any questions about the research study itself, please contact Roxanne Henry at (021) 393 8587/0732579663 or roxannehenry@gmail.com. Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Supervisor: Kamal Kamaloodien
University of the Western Cape
Private Bag X17
Bellville 7535

This research has been approved by the University of the Western Cape's Senate Research Committee and Ethics Committee.



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Private Bag X 17, Bellville 7535, South Africa

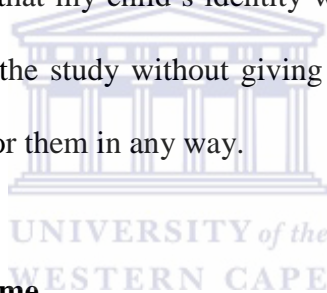
Tel: +27 21-959, Fax: 27 21-959

E-mail:

CONSENT FORM

Title of Research Project: The Association between Perceived Parenting Styles and Adolescent Substance Use

The study has been described to me in language that I understand and I freely and voluntarily agree to have my child participate in. My questions about the study have been answered. I understand that my child's identity will not be disclosed and that I may withdraw him/her from the study without giving a reason at any time and this will not negatively affect me or them in any way.



Parent/Legal Guardian's name.....

Parent/Legal Guardian's signature.....

Date.....

Should you have any questions regarding this study or wish to report any problems you have experienced related to the study, please contact the researcher:

Researcher's Name: Roxanne Henry

Supervisor: K. Kamaloodien

University of the Western Cape

Cell: 0732579663

Email: roxannehenry@gmail.com



UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-959, Fax: 27 21-959

E-mail:

ASSENT FORM: ADOLESCENTS

Title of Research Project: The Association between Perceived Parenting Styles and Adolescent Substance Use

The study has been described to me in language that I understand and I freely and voluntarily agree to participate. My questions about the study have been answered. I understand that my identity will not be disclosed and that I may withdraw from the study without giving a reason at any time and this will not negatively affect me in any way.



Participant's name.....

Participant's signature.....

Witness.....

Date.....

Should you have any questions regarding this study or wish to report any problems you have experienced related to the study, please contact the researcher:

Researcher's Name: Roxanne Henry

Supervisor: K. Kamaloodien

University of the Western Cape

Cell: 0833528501

Email: roxannehenry@gmail.com