

**A PSYCHOSOCIAL PROFILE OF CHILDREN REFERRED TO STERKFRONTEIN
HOSPITAL FOR ASSESSMENT OF CRIMINAL RESPONSIBILITY IN TERMS OF
THE CHILD JUSTICE ACT (75 OF 2008)**

Dr Tsepiso N. Mhlane

A research report submitted to the Faculty of Health Sciences, University of the
Witwatersrand, in partial fulfilment of the requirements for the degree of Master of
Medicine in the branch of Psychiatry

Johannesburg, 23 November 2020



DECLARATION

I, Tsepiso Nolulama Mhlane, declare that this Research Report is my own, unaided work. It is being submitted for the Degree of Master of Medicine at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at any other university.

Tsepiso Mhlane

11th day of July 20 22 in Johannesburg

DEDICATION

This dissertation is dedicated to my daughter Tayana, my driving force and inspiration to always do better than before.

To my family for the continued support over the years.

To my late mother, Mamello Makhetha and grandmother, Beatrice Makhetha for being my guardian angels and continuing to show me love from beyond the grave.

Acknowledgements

Dr Tiaan Schutte

Dr Pralene Maharaj

PRESENTATIONS

Presented at the Annual Research Day for Department of Psychiatry at the University of the Witwatersrand on 21 June 2017.

ABSTRACT

Background

The problem of juvenile delinquency is a serious one worldwide. Research indicates that the commencement of a criminal career in early childhood increases the individual's risk of becoming a serious, violent, and chronic offender by at least two to three times.

In South Africa the Child Justice Act 75 of 2008 ("Act") highlights processes which must be followed when dealing with children aged 10 to 14 years old, who come into conflict with the law.

Methodology

In this study, retrospective file reviews of all the assessments for criminal capacity conducted at Sterkfontein Hospital, during the period from June 2010 up to December 2015, in terms of the Child Justice Act were performed. The aim was to evaluate the demographics, perinatal complications, environment of origin, and the occurrence of psychiatric diagnosis and intellectual functioning of these individuals.

Results

The sample size was 38. The mean age of the children was 13 years. They were all male and the majority of them were black (79%). Rape was the predominant charge (58%) and only 5% had a previous criminal history. Even though 68% were cognitively impaired, most of them were attending mainstream schools. With regards to their assessment for criminal capacity, 60% were assessed as being criminally responsible, 34% were found to lack criminal capacity and for 5% of the children – an assessment for criminal capacity could not be concluded due to the fact that the assessment had occurred at least 2 years after the commission of the offence.

Table of Contents	
DECLARATION.....	ii
DEDICATION	iii
Acknowledgements	iv
PRESENTATIONS	v
ABSTRACT	vi
Table of Contents.....	vii
List of Figures.....	x
List of Tables.....	xi
CHAPTER ONE – INTRODUCTION AND LITERATURE REVIEW	1
1.1 Introduction	1
1.2 Background and Literature Review	1
1.2.1 Individual factors	1
1.2.2 Family factors	3
1.2.3 Environmental/other factors.....	5
1.2.4 Child Justice Act 75 of 2008	5
1.2.5 Criminal Procedure Act 51 of 1977.....	7
1.3 Aim of Study.....	8
CHAPTER TWO – METHODOLOGY.....	9
2.1 Methodology	9
2.1.1 Study Design	9
2.1.2 Site of study.....	9
2.1.3 Study population.....	10
2.1.4 Inclusion criteria	10
2.1.5 Sample size.....	10
2.2. Data collection	11
2.3. Data analysis	12
CHAPTER THREE – RESULTS	13

3.1.	Demographics.....	13
3.2	Perinatal complications and development.....	17
3.3	Education and habits	21
3.4	Medical and psychiatric diagnoses	23
3.5	Criminality	25
3.6	Criminality compared with diagnoses.....	29
3.7	Family factors.....	31
CHAPTER FOUR - DISCUSSION.....		36
4.1	Background.....	36
4.2	Non arrival for appointments	36
4.3	Significance of age and susceptibility to peer pressure	37
4.4	Ethnicity	38
4.5	Offending patterns of cognitively impaired individuals	38
4.6	Assessments for cognitive impairment.....	39
4.7	ADHD, Conduct Disorder and Criminality	40
4.8	Attachment difficulties and criminality	41
4.9	Perinatal vulnerability	43
4.10	Substance use and crime	43
4.11	Family structure, parenting skills and crime	44
4.12	Parental mental illness and effect on development of child and crime.....	45
4.13	Effect of parental offending on child.....	46
4.14	Outcome of the CJA assessments.....	46
CHAPTER FIVE - CONCLUSION		48
5.1	Ethics	48
5.2	Limitations.....	48
5.4	Conclusion	49

REFERENCES.....	51
Legislation.....	55
Appendices	56
APPENDIX A.....	56
APPENDIX B	57
APPENDIX C.....	58

List of Figures

Figure 3.1: Summary of age of subjects.....	15
Figure 3.2: Ethnicity of the juveniles.....	16
Figure 3.3: In utero exposure to illicit substances/nicotine/alcohol.....	19
Figure 3.4: Gestational age at birth	20
Figure 3.5: Type of schooling	22
Figure 3.6: Various diagnoses.....	24
Figure 3.7: Criminal responsibility	27
Figure 3.8: Criminal charge	28
Figure 3.9: Crimes related to children who were noted to have cognitive impairment or conduct disorder.....	30
Figure 3.10: Primary caregiver	33
Figure 3.11: Relationship between parents at birth	34
Figure 3.12: Deceased parents	35

List of Tables

Table 3.1: Demographics	14
Table 3.2: Perinatal complications and development	18
Table 3.3: Type of school attended and substance use	21
Table 3.4: Different diagnoses	23
Table 3.5: Criminality.....	26
Table 3.6: Family factors	32

CHAPTER ONE – INTRODUCTION AND LITERATURE REVIEW

1.1 Introduction

The problem of juvenile delinquency is a serious one worldwide. Research indicates that the commencement of a criminal career in early childhood increases the individual's risk of becoming a serious, violent, and chronic offender by at least two to three times. Furthermore, these offenders generally have a longer criminal career than those with a later onset (Loeber and Farrington, 2000).

1.2 Background and Literature Review

It is a normal part of development for children to engage in minor delinquent acts for excitement, adventure, or a range of other emotions which are common in childhood (Loeber and Farrington, 2000). This allows the child to learn a range of pro-social behaviours through trial and error. However, there are a number of factors that could adversely affect this process and cause the child to continue with disruptive, antisocial behavioural patterns. These factors can be divided into three major categories: 1) individual, 2) family, and 3) environmental factors.

1.2.1 Individual factors

In order to understand these juvenile offenders, it is vital that one takes a closer look at them individually. Juvenile violence is not by its nature unpredictable. Many studies indicate that childhood aggression predicts juvenile violence. One such study was conducted in Finland in 1987, they were able to show that children who were considered to be aggressive by their peers at the age of 8 years, would eventually have some kind of official record of violent behaviour by the time they turn 20 years old (Pulkkinen, 1987, as cited by Loeber and Farrington, 2000).

While it is an obvious truth that criminality does not always equate to psychological pathology, it is a fact that there are certain psychological disorders which seem more common in juveniles who display criminal behaviour. Attention Deficit Hyperactivity Disorder (ADHD) is one such condition which has been implicated as a major factor when present. These children are often impulsive, with poor frustration tolerance and dramatic mood swings, which often lead to destructive behaviour. In the Orebro

longitudinal study of 1027 children, “hyperactivity at 13 years of age predicted police-recorded violence up to 26 years of age” (Klinterberg et al., 1993, as cited by Loeber and Farrington, 2000).

Another condition associated with delinquent behaviour in youth is Oppositional Defiant Disorder (ODD). Children with ODD have an ongoing pattern of disobedient, hostile, and defiant behaviour towards authority figures that goes beyond the boundaries of normal childhood rebelliousness. They do not take “no” for an answer and rarely take responsibility for their disruptive actions. Further, they are quick to externalise blame. Children with ODD may display some bullying behaviour and this will frequently be verbal in nature, although for a smaller number physical confrontations may occur (Miller, 2014.)

According to the Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM5), ODD is diagnosed when a pattern of angry/irritable mood, argumentative/defiant behaviour, or vindictiveness is present for at least six months (APA, 2013). The behaviour is associated with distress in the individual or others and impacts negatively on social, occupational, or educational functioning (APA, 2013). In those who begin to display serious physical and violent behaviour it is usually a sign that the diagnosis has most likely shifted to Conduct Disorder. Conduct Disorder is typically the precursor to adult Antisocial Personality Disorder, and is, not surprisingly, one of the prominent individual factors.

Moffitt (1993) proposed two developmental pathways to delinquency: the adolescent-limited delinquents and the life-course persistent delinquents. The former comprises the majority of youths. They have unremarkable childhoods, but when they reach adolescence, for some reason, possibly peer pressure, they engage in rebellious behaviour which gets them in trouble with the law. The adolescent-limited delinquents will typically desist in their antisocial behaviour by their late teens or early twenties and adjust satisfactorily to the demands of adult life. The latter group, namely the life-course persistent delinquents, probably represents those individuals who would have displayed Conduct Disorder features in childhood. They begin their antisocial behaviour very early in childhood and persist with this behaviour throughout their adolescent and adult lives.

However, other literature sources tend to support a third category to the developmental pathway in addition to the two already mentioned; namely the late bloomers. This refers to individuals who have relatively peaceful childhoods and early teen years, followed by the development of antisocial behaviour in late adolescence or early adulthood. The behaviour then persists throughout their lives. Furthermore, research studies show that most late bloomers tend to be female (Miller, 2014).

Intellectual disabilities and learning disorders have also been observed in juvenile delinquents. In a number of studies, the correlation between low IQ and violence has been noted to be remarkably high. "Low verbal and performance IQ at 4 and 7 years of age and low scores on the California Achievement Test at 13-14 years of age predicted arrests for violence up to 22 years of age" (Loeber and Farrington, 2000). Furthermore, impulsivity, inattention and low intelligence could be linked to deficits in executive functions of parts of the brain, located in the frontal lobe, suggesting frontal lobe pathology in these individuals. It is also important to recognise that all of the abovementioned factors could occur in combination, as is usually the reality in most cases.

1.2.2 Family factors

It is a well-established observation that criminal behaviour runs in families. Multiple studies have shown a genetic link, where biological children of convicted criminals who were raised in a non-criminal family or space, displayed a rate of antisocial behaviour that was quite similar to their siblings who stayed with the original family. These studies also found that conversely, offspring of non-criminal parents who end up being raised in a criminal household only display slightly elevated rates of criminal behaviour (Miller, 2014).

Studies have shown an interplay between genetic and environmental factors (which will be discussed later) with the development of antisocial behaviours. Multiple studies have addressed the question of genetic influence on antisocial behaviour, and meta-analysis concludes that "genes influence 40% to 50% of population variation" in antisocial behaviour. The analysis also showed that environmental influences account for variation. (Moffitt, 2005)

Prenatal problems have also been identified. Maternal use of substances during the pregnancy is one such factor; especially those mothers who continue to smoke during pregnancy (Loeber and Farrington, 2000). There is no clear reason why this is of particular importance; however, it can be speculated that it could be due to the fact that smoking is associated with low birth weight (LBW) infants. These LBW infants are at a high risk of inhibited cognitive development, which could lead to intellectual disabilities or learning difficulties. As previously mentioned, intellectual disability and learning difficulties form part of the individual's risk factors for criminal behaviour.

Other conditions to bear in mind within families of delinquent children are parental discord, poor parent-child relations, and poor child-rearing practices. Parents who also set bad examples by engaging in unhealthy or illegal activities, such as family violence and drug use, could adversely affect the development of the child. In some instances, large families with a high turnover of caretakers were also noted as a contributing factor. Commonly, a range of bad parenting skills will tend to cluster together so that parents, who are lax in proper boundary setting and supervision of school and play activities, will also be incompetent or uninvolved in appropriate discipline for aggressive misbehaviour (Miller, 2014).

It has also been found that poor attachment to parents has a strong link to delinquent behaviour. However, although the attachment-delinquency link may partly explain female delinquency, it does not provide an explanation as to why boys are more often involved in delinquent behaviour than girls. This will require further research (Hoeve, Stams and Van der Put, 2012). The association between attachment and delinquency is negatively related to age, suggesting that the influence of attachment to parents on delinquency weakens as youngsters become older (Hoeve *et al.*, 2012). Furthermore, parental control and discipline are at least as, or even more important for predicting behaviour. Attachment to mothers was more important for girls, while attachment to fathers was more important for boys with regard to the development of delinquency (Hoeve *et al.*, 2012). These findings suggest that attachment to parents is a viable target for interventions aimed at reducing or preventing delinquency. These interventions should also aim to improve discipline techniques of parents.

1.2.3 Environmental/other factors

The type of area a child lives in or is brought up in plays a critical role. Children living in high crime areas are at an increased risk of participating in criminal behaviour. This situation is perpetuated by the effortless availability of weapons in such areas, as well as negative peer influences, which can also be attributed to gangs or just associating with deviant or delinquent peers. Over and above peer influences, children can also be influenced into violence by what they see or experience in the media. Children enjoy imitating acts that they have seen, and this puts emphasis on the media's ability to influence the behaviour of children. "After showing violent scenes on TV at high frequencies to boys aged 12-17 years living in the city of London, their violence significantly increased" (Sakuta, 1995). Poorly organised schools with limited resources and support structures for children can compound the situation.

In identifying some of the abovementioned risk factors, the assumption would be that there must be other factors that, if present, would provide a protective role. However, when reviewing the literature, it is quite evident that when it comes to juvenile delinquency, protective factors and risk factors are basically opposite ends of the same variable. It is clear that further research is required in this regard.

1.2.4 Child Justice Act 75 of 2008

South Africa has specific processes for dealing with children who come into conflict with the law, that are regulated by the Child Justice Act 75 of 2008 ("Act"). This Act takes into account the Constitution and other international norms. It is also designed to prevent children from being exposed to the adverse effects of the formal, adult criminal justice system, and therefore allows for diversion programmes where deemed necessary.

The "Act" applies to children who are below the age of 18 years at the time of commission of a crime and includes individuals who are still under the age of 21 years whilst still awaiting trial. Furthermore, it deals with the processes which must be followed in establishing the criminal capacity of the child, as well as the appropriate intervention necessary for the rehabilitation of the child.

Criminal capacity refers to an individual being of sufficiently sound mind so that they may be found guilty of committing a crime or having sufficient mental faculties to understand the difference between right and wrong. According to the Act, children aged below 10 years lack criminal capacity. If a child below the age of 10 years commits a crime, the case is managed by a probation officer who often decides on the appropriate form of intervention for each child.

In the case of children 10 to 14 years of age, the Act places the burden on the state to prove criminal capacity beyond reasonable doubt. These cases (10-14 years) are managed by a prosecutor who decides if the child is going to be prosecuted for the crime. For several reasons, including for the purposes of a plea, trial, diversion or at the request of a role player, a thorough assessment of the child must be conducted in order to determine criminal capacity in terms of section 11 of the Act and for an assessment of the “cognitive, moral, emotional, psychological and social development” of the child. The assessment has to be conducted by a suitably qualified person (psychiatrist or clinical psychologist.)

At Sterkfontein Psychiatric Hospital, a designated forensic psychiatric institution in Gauteng, a multidisciplinary evaluation is conducted in order to comprehensively answer the question of criminal capacity and the development of the child. This entails a psychiatric interview, physical examination, and developmental history-taking by a child psychiatrist. In addition, a psychologist conducts intellectual and emotional assessments. The choice of assessment tools is determined by the age, cognitive development, first language and educational level of the child. An occupational therapy functional assessment is also performed. Detailed collateral information is obtained from various sources, including the parent/guardian of the child and schoolteacher/principal.

As already mentioned, the Act allows for diversion processes to be implemented when it is deemed necessary. There are a number of organisations which provide Youth Diversion Services as stipulated by the Act. The most prominent one is NICRO. They have been providing diversion services since 1992, and recorded in their study in 2002, recidivism rates of less than 10% over three years by NICRO diversion

beneficiaries (Smit, 2011). Diversion programmes are applied pre-trial, and they are determined by the type of offence that has been committed by the individual.

In a report of cases diverted to NICRO between June 2009 and May 2010, it was noted that 58% of the total number of referrals received were for juveniles who were 18 years old or younger. Gauteng had the highest number of juveniles (448), and Limpopo had the lowest at 62; this was out of a total of 2 600 referrals with ages ranging from under 12 years and over 60 years (Smit, 2011).

It is thus indisputable that juveniles form a large number of criminals in our justice system and therefore pose an extensive public health risk, as well as contributing to the mounting tax burden on society as a whole. The benefit of analysing these juvenile delinquents is that screening methods can be put in place earlier, enabling the different officials (social workers, mental health care practitioners, justice officials, etc.) who deal with them to proactively distinguish between those whose criminal behaviour could escalate to serious offences and those who will not, before the accumulation of multiple offences.

In order for these prevention countermeasures to be implemented, it is necessary to understand these individuals, as well as the actual circumstances and various factors leading to their misconduct. According to the researcher's knowledge, this is the first study in South Africa to attempt to gain some psychosocial knowledge of young offenders who have been referred in terms of the Child Justice Act.

1.2.5 Criminal Procedure Act 51 of 1977

The Criminal Procedure Act 51 of 1977 (CPA) is another act that deals with criminal responsibility or criminal capacity. Section 77 of the CPA defines fitness to stand trial as the ability to follow the court proceedings and make a proper defence. Section 78 deals with criminal responsibility. Under these sections, a forensic assessment of the accused can be performed in a facility such as Sterkfontein Hospital in order to establish criminal capacity/responsibility. According to the CPA, criminal responsibility refers to the person's ability to appreciate the wrongfulness of his or her act or omission (first leg of responsibility) and the ability to act in accordance with an appreciation of the wrongfulness of his or her act or omission (second leg of responsibility). With regard to juveniles, the CPA is at times utilised when the offender

is between the ages of 14 and 18 years and a mental illness or intellectual disability is queried. The Child Justice Act presumes that all individuals aged 10 to 14 years lack criminal responsibility; whereas the Criminal Procedure Act allows for an assessment only if there has been reasonable evidence suggesting that the accused may suffer from a mental illness or intellectual disability that may negate criminal capacity.

1.3 Aim of Study

The aim of this study was to identify the psychological and social circumstances of the children evaluated at Sterkfontein Hospital under the Child Justice Act. The emphasis was on recognising predominant characteristics present in the children (e.g., common diagnosis, or use of substances). The study did not set out to prove a hypothesis. It was not possible to look for associations between the study variables and criminal responsibility due to the small sample size, and this could be done in the future as the hospital continues to evaluate more children.

The objectives of this study were:

- To determine the demographics of the individuals
- To note any perinatal complications possibly suffered by the individuals
- To examine family life and societal characteristics of where the individuals originate from
- To determine the occurrence of psychiatric diagnoses within these individuals
- To determine the intellectual functioning of these individuals
- To determine problematic behavioural patterns which could be present

CHAPTER TWO – METHODOLOGY

2.1 Methodology

2.1.1 Study Design

This study was a retrospective file review of all the assessments for criminal capacity performed on children who were between the ages of 10 and 14 years at the time of commission of the alleged offence. These assessments were conducted at Sterkfontein Hospital in terms of the Child Justice Act. It was a cross-sectional study looking specifically at the children who are referred according to section 11 of the Child Justice Act. This particular study design required the analysis of data that was initially collected for reasons other than research. This included physician's notes, laboratory, and diagnostic testing reports, and other clinical or administrative data.

2.1.2 Site of study

The study was conducted at Sterkfontein Psychiatric Hospital, which is situated in the West Rand area of Gauteng Province. This hospital is part of the public healthcare system and had a total of 678 beds; of which 365 beds were dedicated to general psychiatry and the remaining 313 beds were dedicated to forensics. Of the 313 beds allocated to forensic inpatients, a portion of these were utilised for 30-day observations and the remaining beds were reserved for state patients. These bed statistics were true at the time the study was conducted.

Sterkfontein hospital is also a training institute affiliated with the University of the Witwatersrand Medical School, as well as a number of nursing colleges. This means that medical and nursing students rotate through the facility as part of their training.

At the time of the study, the assessments done under the Child Justice Act were not performed on inpatients; they were performed on an outpatient basis. Sterkfontein Hospital began doing these assessments in June 2010. There are two interviews booked with the psychiatrist related to the assessment of the child. The first interview is with the guardian or caregiver of the child and the second appointment for interviewing of the relevant child. A detailed history is taken from both the guardian or caregiver and the child. This would include information about the birth and development of the child, previous and current medical conditions, previous and

current psychiatric conditions, criminal history, schooling history and family history, as well as a detailed account of the offence. Before the date of the assessment, a copy of the docket is sent to the hospital for the forensic psychiatrist to review. The docket contains all information pertaining to the current charge, including witness statements. Following the initial assessment of the child by the psychiatrist, they are then booked for two further assessments. Emotional, cognitive, and psychological testing is performed by the psychologist and a functional assessment is performed by the occupational therapist. These are done on different days as the tests take a few hours to administer and a child cannot be expected to be able to perform at their optimum level after many hours. This is important, as fatigue can negatively affect the results of the tests. The psychiatrist then collects all the information and uses it to compile a report for the court, indicating if the child is currently fit to stand trial and also whether they were responsible for their actions during the commission of the offense. An assessment for fitness is not indicated by the “Act”, however, the relevant psychiatrist at Sterkfontein Hospital has decided to include this in order to provide additional information to the court.

2.1.3 Study population

At the time of the study, Sterkfontein Hospital evaluated male juvenile offenders from the Gauteng region, Mpumalanga and Northwest provinces.

2.1.4 Inclusion criteria

The researcher included all completed forensic assessments dating from 2010 up to December 2015, referred to the hospital in terms of section 11 of the Child Justice Act. In this study the researcher only included assessments which had already been completed, starting from the time the hospital began conducting these forensic assessments in June 2010. None of the completed cases were excluded.

2.1.5 Sample size

We included completed assessments over a period of about five years (June 2010 – December 2015); the sample size was still a small number of 38. At the time of completion of data collection (December 2015), there was a total of 38 completed assessments in terms of section 11 of the Child Justice Act. This roughly translates to about 1 referral every 2 months and the reason for this remains unclear. It could be

that the courts are underutilising the services or that there is not a large number of offenders in the age range stipulated by the Child Justice Act. Another possible reason for the small sample size could have been the fact that the Act was still relatively new at the time the study was conducted and the courts were still unfamiliar with it.

This was a descriptive study, with mostly reporting of percentages.

2.2. Data collection

For each individual, the researcher scrutinised the demographics, psychiatric diagnosis, results of the intellectual assessment, as well as the resultant outcome of the assessment with regard to criminal responsibility. Information was gathered from court reports and police reports, as well as clinical files. Information was then documented on a data sheet, and any predominant or common factors were described.

Factors that were examined were age and ethnicity, and the different charges and criminal history of the offenders. Medical and psychiatric diagnoses were also noted, as well as perinatal history, complications at birth, as well as the development of the child. The type of school the individual attended, and their intellectual abilities were also noted as relevant factors. Information about the relationship between the parents and the type of environment the child has been exposed to was evaluated. Finally, it was also noted whether the offender was assessed as being fit or unfit to stand trial and whether they were actually deemed to be responsible for the offence.

It is important to note that the Act does not deal with fitness, nor does it require an assessment of fitness of the child; however, at Sterkfontein Hospital a decision was made to include fitness as part of the assessments due to the fact that it is difficult to assess for criminal capacity without evaluating for fitness. This also allows for a more comprehensive understanding of the accused child.

2.3. Data analysis

The descriptive analysis of the data was carried out as follows: Categorical variables were summarised by frequency and percentage tabulation and illustrated by means of bar charts. Continuous variables were described by the mean, standard deviation, and histogram.

Data analysis was carried out using SAS version 9.4 for Windows.

CHAPTER THREE – RESULTS

3.1. Demographics

The ages of the male juveniles assessed ranged from 10 years to 18 years, with the mean age of 13.5 years (**Figure 3.1**) (**Table 3.1**). The ethnicity varied between black, white, and coloured. The majority of the offenders were black (79%, n=30), followed by white (16%, n=6) and then coloured (5%, n=2) (**Figure 3.2**) (**Table 3.1**).

Table 3.1: Demographics

Variable	Category	Overall	
		n	%
Age (years)	10	1	3
	11	3	8
	12	2	5
	13	15	39
	14	10	26
	15	5	13
	17	1	3
	18	1	3
Ethnicity	Black	30	79
	White	6	16
	Coloured	2	5

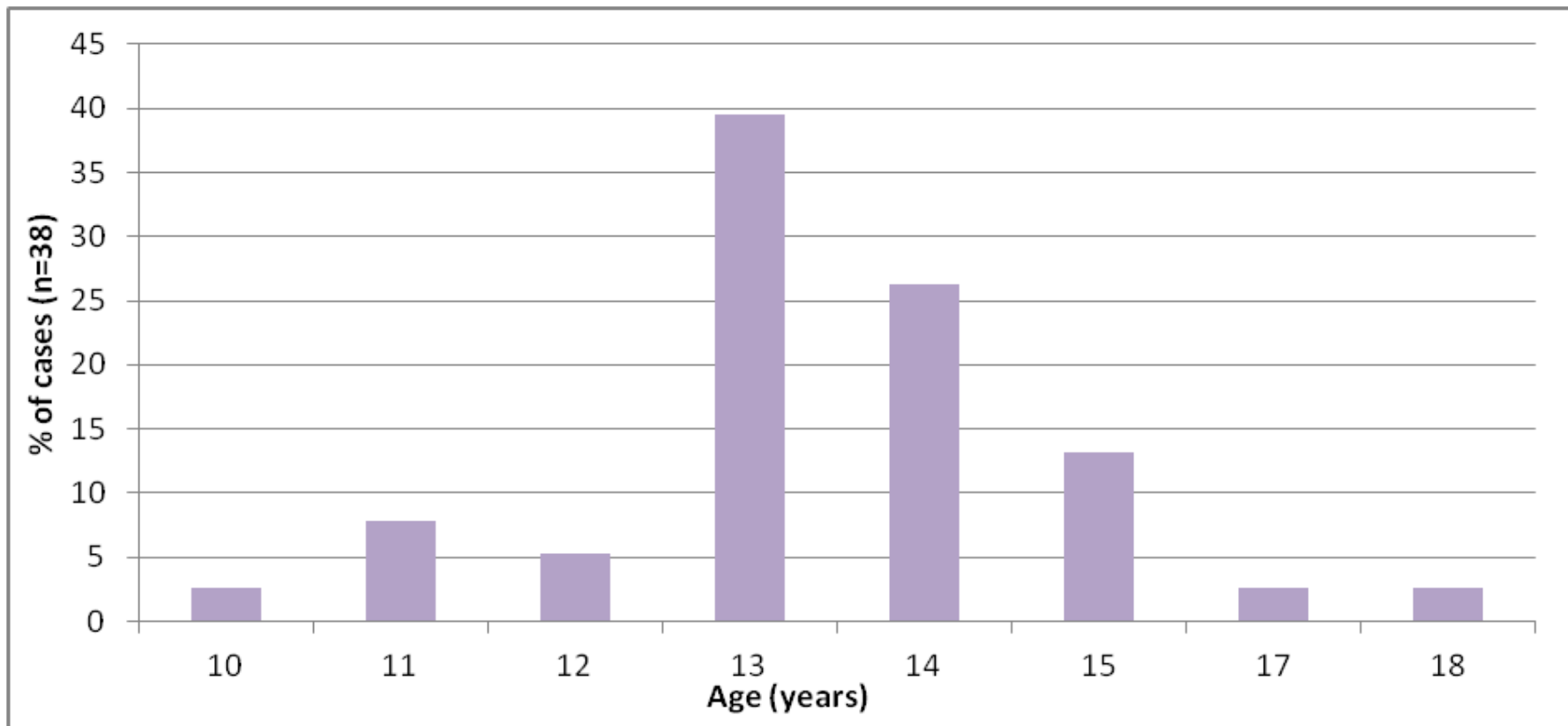


Figure 3.1: Summary of age of subjects

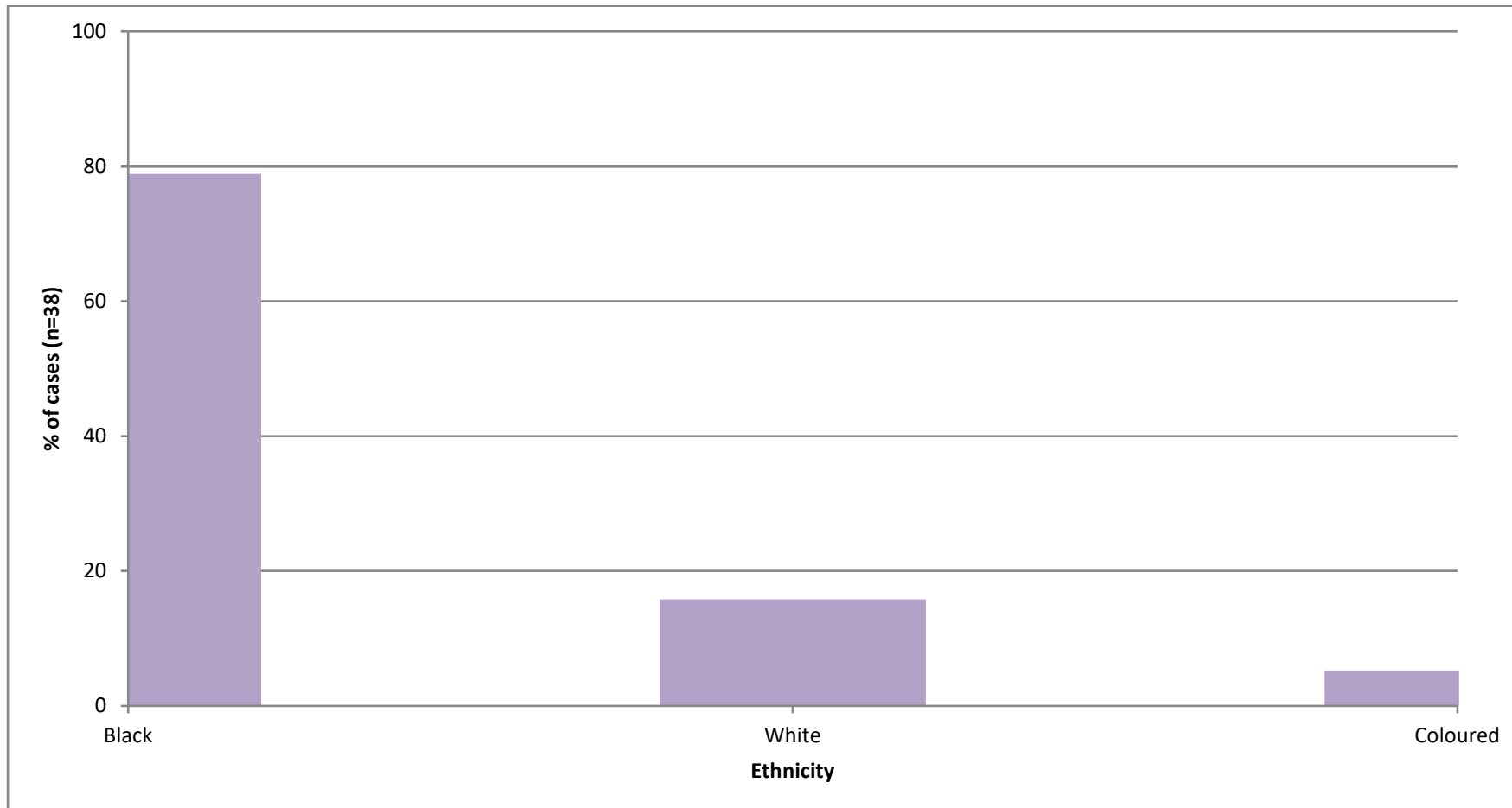


Figure 3.2: Ethnicity of the juveniles

3.2 Perinatal complications and development

Perinatal conditions and development are summarised in **Table 3.2**. The majority of the subjects had been delivered vaginally [89% (n=34)], while 8% (n=3) were delivered via caesarean section and for 3% (n=1) the mode of delivery was not noted. Most of the subjects did not suffer any complications at birth [84% (n=32)], 8% (n=3) actually did suffer complications and for the remaining 8% (n=3) the presence or absence of complications at birth was not noted. One of the complications suffered at birth was asphyxia [5% (n=2)]. The developmental milestones were normal for 87% (n=33). Only 5% (n=3) had delayed milestones and for the remaining 8% (n=3) developmental milestones could not be obtained from the guardian or caregiver. **Figure 3.3** deals within utero exposure to substances, where 21% (n=8) had been exposed to illicit substances in utero, while 13% (n=5) had been exposed to alcohol and nicotine. The sum of the percentages for in utero exposure to substances does not add up to 100% as some subjects were exposed to more than one substance. Lastly with regards to gestational age at birth, 89% (n=34) were born at term, 3% (n=1) were premature, another 3% (n=1) were post term and for 5% (n=2) the age at delivery was not known (**Figure 3.4**)

Table 3.2: Perinatal complications and development

Variable	Category	Overall	
		n	%
In-utero exposure	Illicit substances	8	21
	Nicotine	5	13
	Alcohol	5	13
Mode of delivery	NVD	34	89
	C-section	3	8
	Unknown	1	3
Gestational age	Term	34	89
	Premature	1	3
	Post term	1	3
	Unknown	2	5
Complications at birth	No	32	84
	Yes	3	8
	Unknown	3	8
Asphyxia at birth	No	36	95
	Yes	2	5
Milestones	Normal	33	87
	Delayed	2	5
	Unknown	3	8

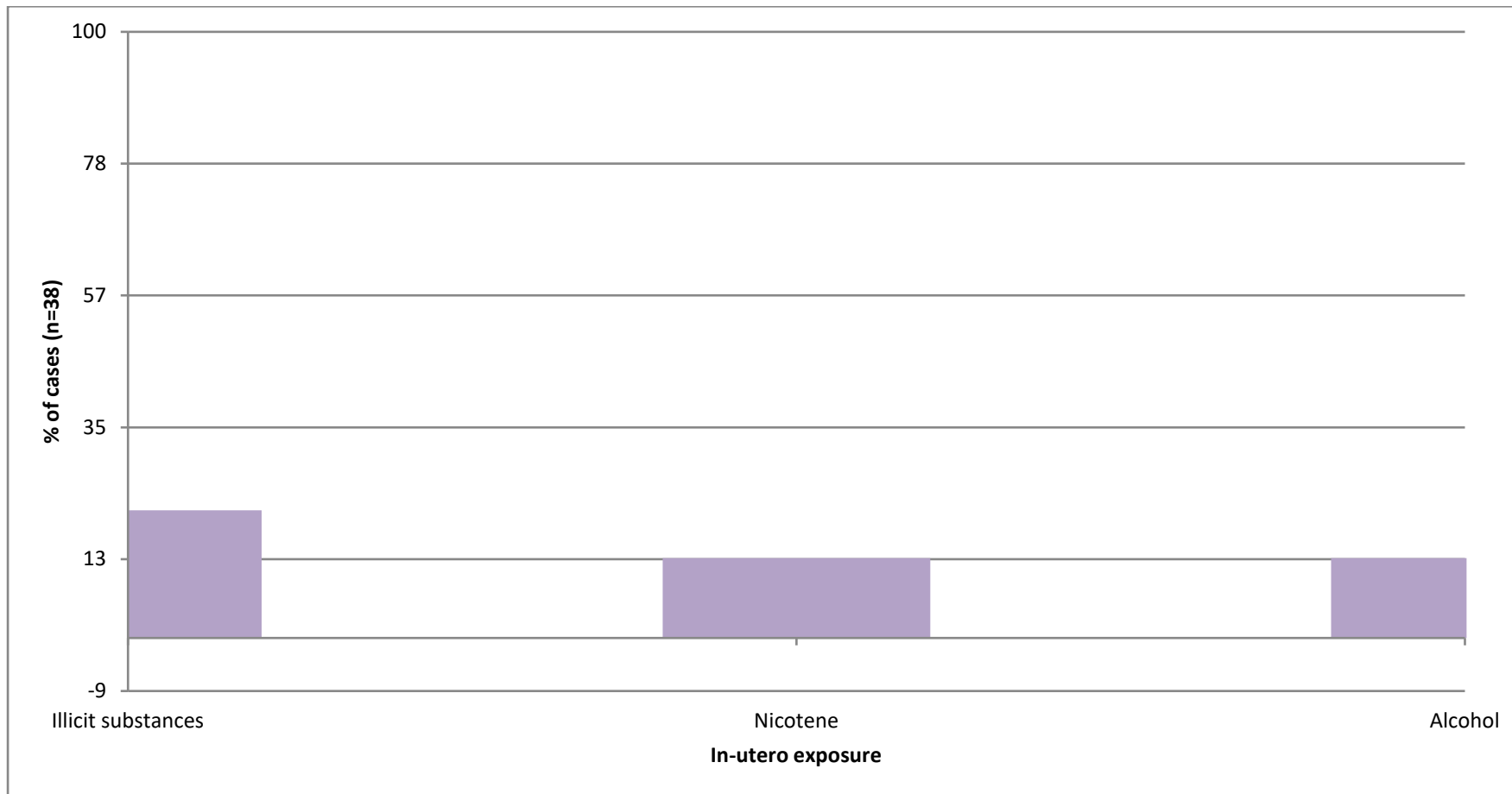


Figure 3.3: In utero exposure to illicit substances/nicotine/alcohol

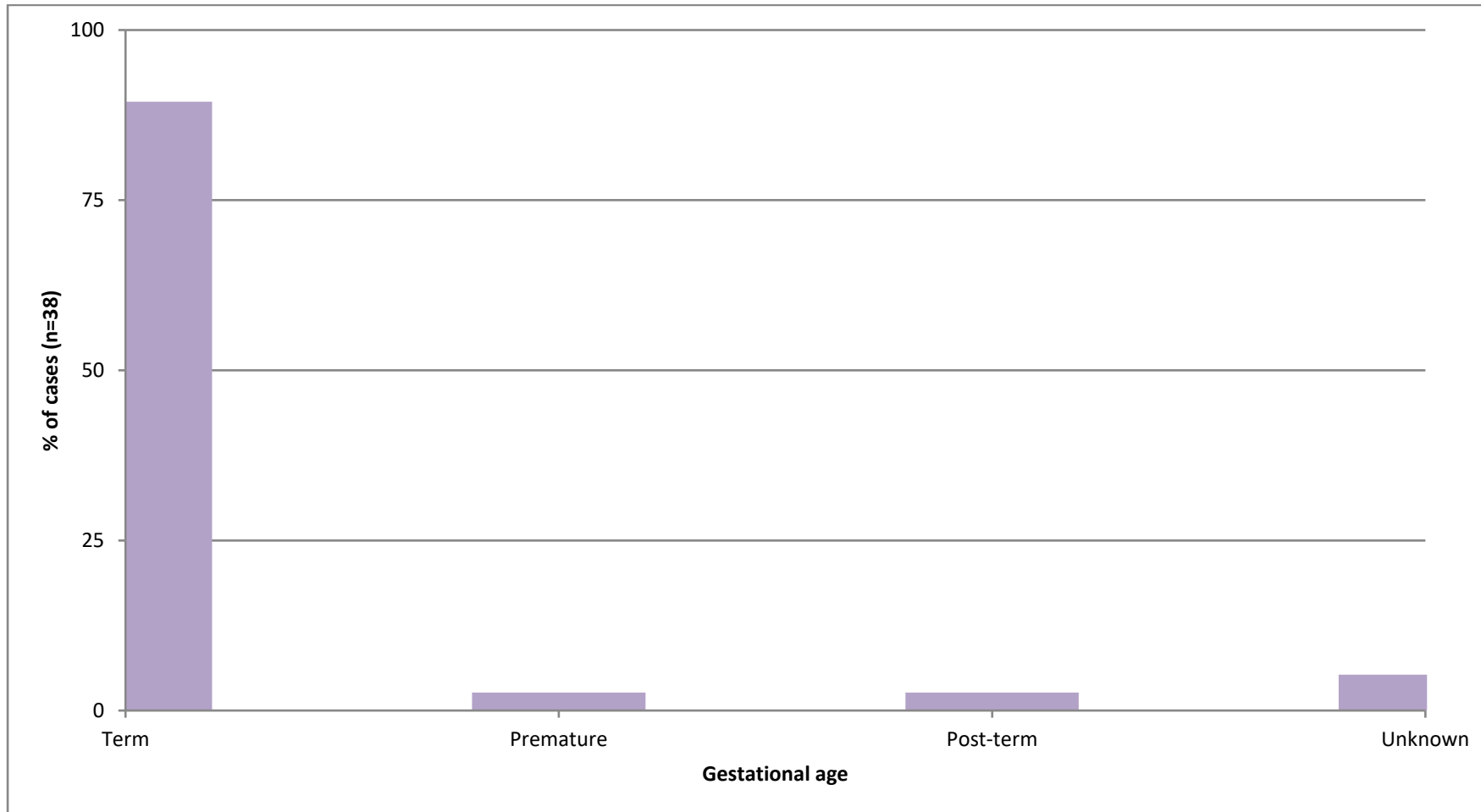


Figure 3.4: Gestational age at birth

3.3 Education and habits

The type of school the children went to was also assessed. Of those assessed, 76% (n=29) attended mainstream school, 16% (n=6) were in a special school and the remaining 8% (n=3) were not attending a school (**Figure 3.5**) (**Table 3.3**). With regard to habits, 66% (n=25) denied the use of substances, while 34% (n=13) had a history of using substances (**Table 3.3**).

Table 3.3: Type of school attended and substance use

Variable	Category	Overall	
		n	%
School type	Mainstream	29	76
	Special	6	16
	Not attending school	3	8
Substance use	No	25	66
	Yes	13	34

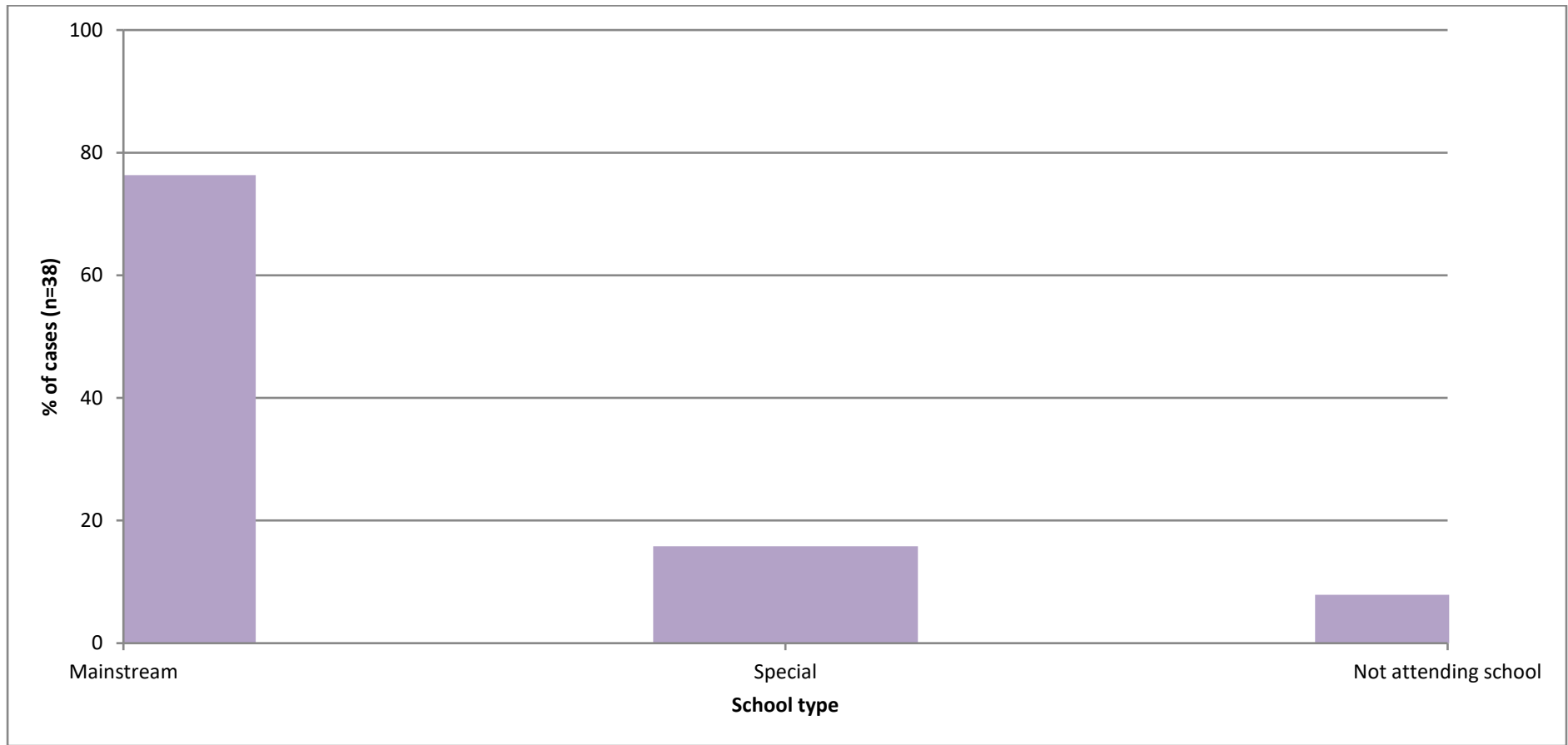


Figure 3.5: Type of schooling

3.4 Medical and psychiatric diagnoses

Some subjects had psychiatric and medical diagnoses which were significant. Some had more than one diagnosis and therefore the sum of the percentages does not equal 100%. Although it would have been informative to depict the pattern of comorbid diagnoses, due to the fact that the information was too scattered it was impossible to show this on a single graph. More than half of the subjects had some degree of cognitive impairment (68%, n= 26). We refer to a general term of cognitive impairment since not all children were suitable for IQ assessments, for some children an assessment of cognition was done clinically by the psychiatrist. Other children also had documented learning disorders, and some were already in schools for children with special needs – all these factors were interpreted as cognitive impairment in the study. Conduct disorder was the second most common diagnosis (53 %, n=20). It was noted that a significant number of the juveniles [34% (n=13)] had attachment difficulties. ADHD was also present in 11% (n=4) of the individuals. Apart from the psychiatric diagnoses some of them had a medical history 16% (n=6) and when investigating the medical history further, it also emerged that 8% (n=3) had some degree of head injury (**Table 3.4 and Figure 3.6**).

Table 3.4: Different diagnoses

Variable	Category	Overall	
		n	%
Diagnoses	Cognitive impairment	26	68
	Conduct disorder	20	53
	Attachment difficulties	13	34
	Other psychiatric diagnosis	7	18
	History of other medical conditions	6	16
	ADHD	4	11
	Head injury	3	8

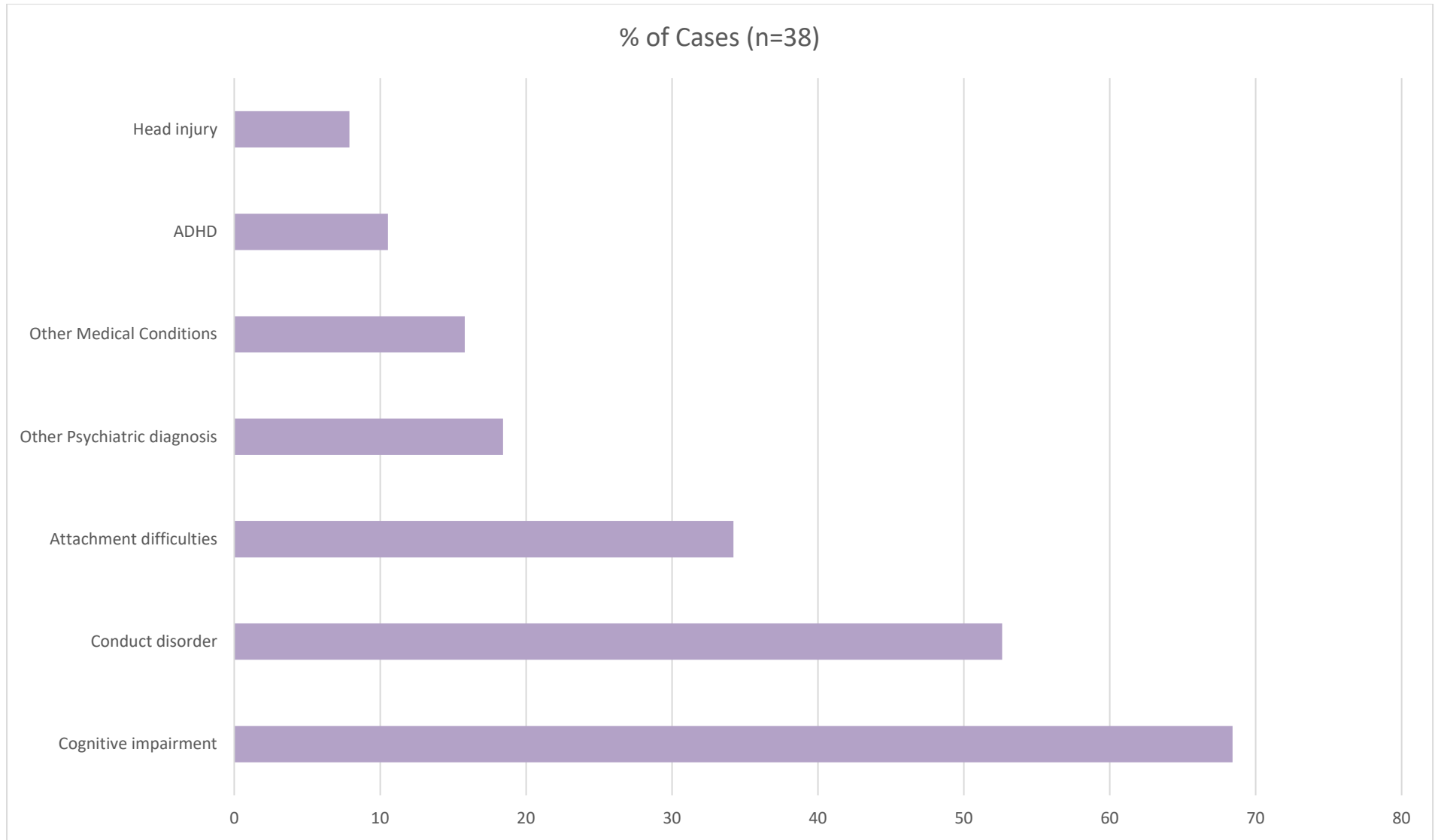


Figure 3.6: Various diagnoses

3.5 Criminality

Of the juvenile offenders, 61% (n=23) were assessed to be fit to stand trial and 39% (n=15) were assessed to be unfit to stand trial. Note again that an assessment of fitness is not required in terms of the Act; however, it is included at Sterkfontein Hospital to provide a more comprehensive evaluation of the children. Of the juveniles, 60% (n=23) were found to be responsible on both legs (1st leg – appreciation of the wrongfulness of the act, 2nd leg- the ability to act in accordance with the appreciation); whilst 21% (n=8) were found to be not responsible only on the second leg and 13% (n=5) were found to be not responsible on both legs. For 5% (n=2) of the juveniles a comment on responsibility could not be made because they were assessed more than two years after their offences had occurred (**Figure 3.7**). It is important to note that out of the 39% (n=15) which were found to be unfit to stand trial, 27% (n=4) of those were actually responsible for their crimes.

It was possible to identify 9 different offences which the juveniles had been charged with. Some offenders were charged with more than one offence. The offences were the following: rape (58%, n=22), theft (18%, n=7), housebreaking (13%, n=5), murder (13%, n=5), arson (8%, n=3), assault (3%, n=1), sexual assault (3%, n=1), armed robbery (3%, n=1) and malicious injury to property (3%, n=1) (**Figure 3.8**). The sum of the percentages for the charges did not equal 100% as some juveniles had more than one charge. Only 5% (n=2) of the juveniles had a criminal history. Criminality is summarised in (**Table 3.5**).

Table 3.5: Criminality

Variable	Category	Overall	
		n	%
Fitness to stand trial	Fit	23	61
	Not fit	15	39
Responsibility on 1st leg	Responsible	31	82
	Not responsible	5	13
	Could not assess	2	5
Responsibility on 2nd leg	Responsible	23	61
	Not responsible	13	34
	Could not assess	2	5
Charge	rape	22	58
	theft	7	18
	housebreaking	5	13
	murder	5	13
	arson	3	8
	assault	1	3
	sexual assault	1	3
	armed robbery	1	3
	MITP	1	3
Criminal history		2	5

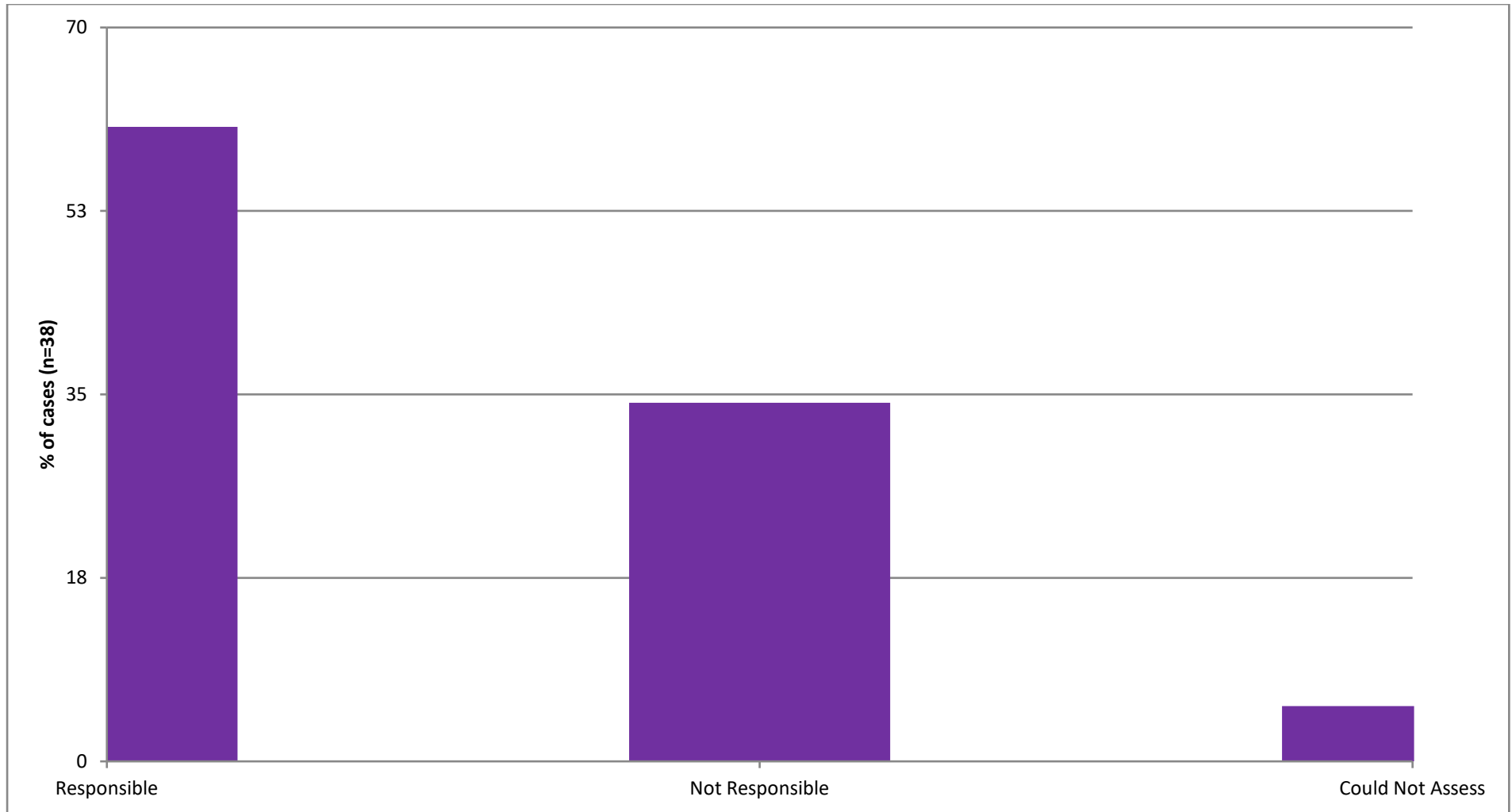


Figure 3.7: Criminal responsibility

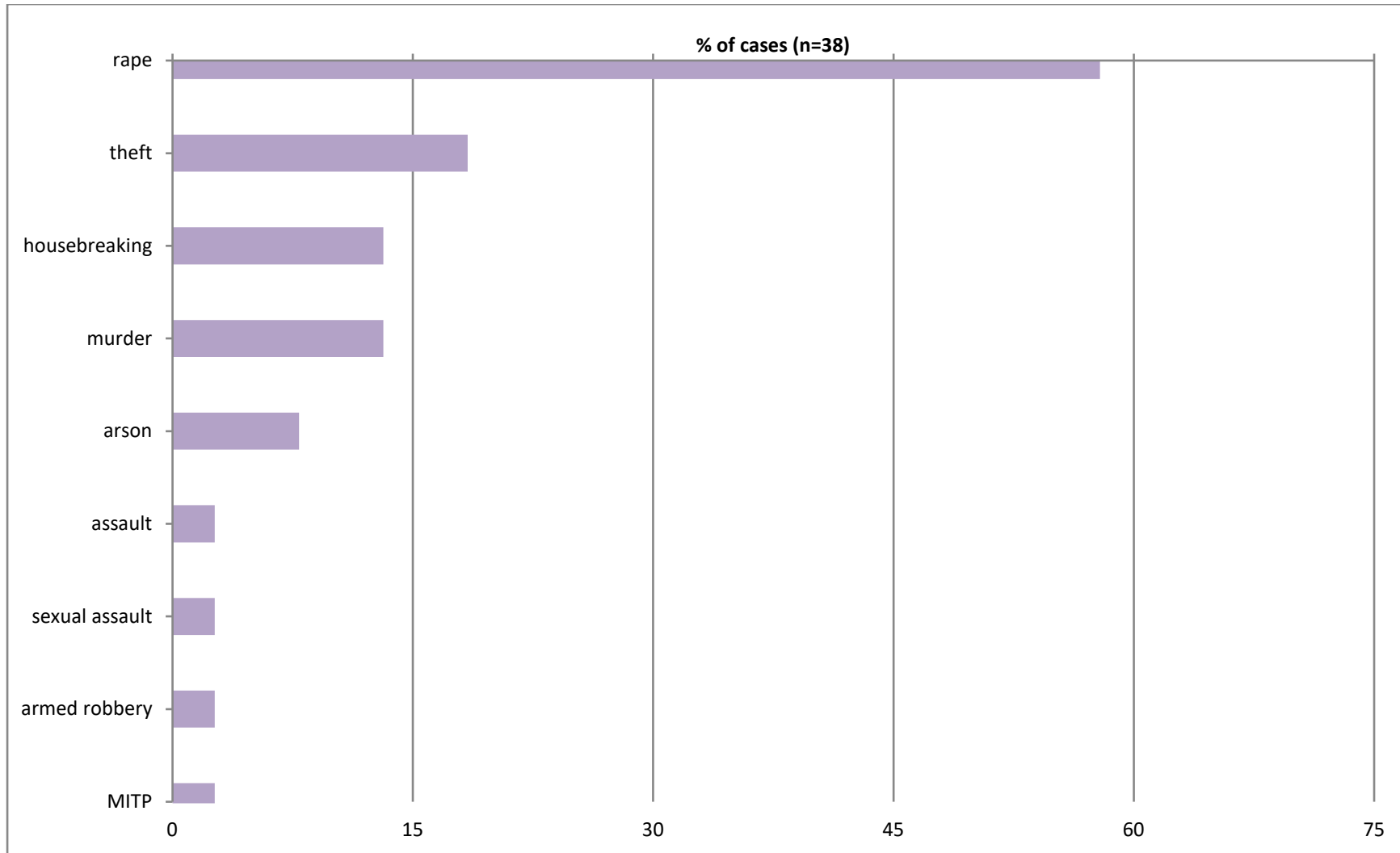


Figure 3.8: Criminal charge

3.6 Criminality compared with diagnoses

Due to the small sample size, it was not possible to make statistically significant comparisons between the variables, however we still thought it was interesting to note some of the comparisons within our results as this would give us a clearer understanding of our subjects. We took the 2 most common diagnoses: cognitive impairment 68% (n=26) and conduct disorder 53% (n=20), we plotted the different charges in order to note which was the prominent and least prominent charges that children with these 2 diagnoses presented with. The results were quite similar as noted in **Figure 3.9**. Rape was the predominant charge at 62% (n=16) and 65% (n=13), for cognitively impaired (CI) and conduct disordered (CD) individuals respectively. Theft was the next prominent charge at 27% (n=7) and 25% (n=5), for CI and CD respectively. The third notable charge was housebreaking, which was 19% (n=5) for CI and 20% (n=4) for CD. Arson was the fourth commonest charge with 12% (n=3) of cognitively impaired and 10% (n=2) of children with conduct disorder having been charged with it. Murder was 8% (n=2) in children with CI and 5% (n=1) for those with CD. Assault and MITP were the least, where 4% (n=1) of cognitively impaired individuals were charged with these 2 crimes; whereas with the children who had been diagnosed with conduct disorder, none were charged with assault and only 5% (n=1) were charged with MITP. The fact that some of the children had more than 1 charge each has obviously affected the numbers. Another significant finding was that 49% (n=18) of the 38 children were diagnosed with both Conduct Disorder and also noted to be Cognitively Impaired.

Another factor with regards to criminality which was explored was the number of children who had multiple charges. 24% (n=9) of the children had more than 1 charge. 11% (n=4) were charged with housebreaking and theft, 5% (n=2) were charged with theft and arson, 3% (n=1) were charged with 2 counts of assault, 3% (n=1) were charged with rape and sexual assault, 3% (n=1) were charged with theft and arson, and another 3% (n=1) were charged with housebreaking with intent to steal and 3 counts of theft.

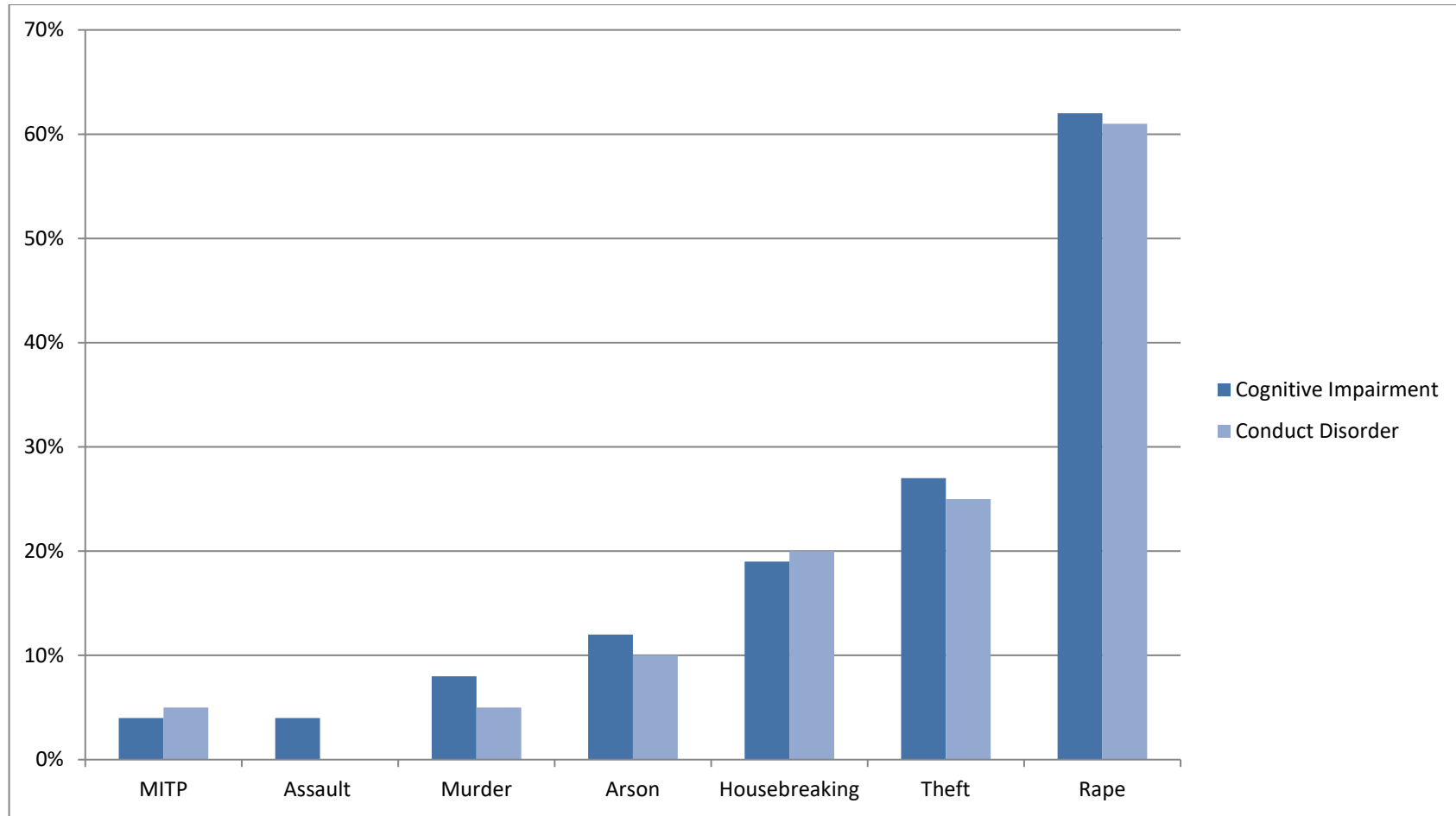


Figure 3.9: Crimes related to children who were noted to have cognitive impairment or conduct disorder

3.7 Family factors

The subjects had a range of caregivers; 55% (n=21) were under the care of their mothers only, 26% (n=10) were under the care of their grandparents, 24% (n=9) were under the care of both their parents, 11% (n=4) were being looked after by social services, 3% (n=1) were under the care of their siblings and 3% (n=1) were under the care of other relatives (**Table 3.6**).

It is also important to note that none of the subjects were being cared for by only their fathers (**Figure 3.10**). The percentages here do not add up to 100% as some juveniles had more than one primary caregiver. The relationship between the parents was recorded at the birth of the child as, since then, some parents or both parents have died. Most of the parents were separated [58% (n=22)], 32% (n=12) were married, 5% (n=2) were divorced and another 5% (n=2) were in a relationship with each other at the time of birth of the subjects (**Figure 3.11**).

Of these subjects 71% (n=21) had both parents still alive at the time of the assessment, 11% (n=4) had lost either their mother or their father and 8% (n=3) had lost both parents (**Figure 3. 12**).

With regard to family psychiatric history 68% (n=26) had no family history, 26% (n=10) had a positive family history and for 5% (n=2) the family history was unknown.

Table 3.6: Family factors

Variable	Category	Overall	
		n	%
Primary caregiver	Mother only	21	55
	Grandparents	10	26
	Mother and father	9	24
	Social services	4	11
	Siblings	1	3
	Other relatives	1	3
	Father only	0	0
Relationship between parents	Separated	22	58
	Married	12	32
	Divorced	2	5
	In relationship (unmarried)	2	5
Deceased parents	None	27	71
	Mother	4	11
	Father	4	11
	Mother and father	3	8
Family psychiatric history	No	26	68
	Yes	10	26
	Unknown	2	5

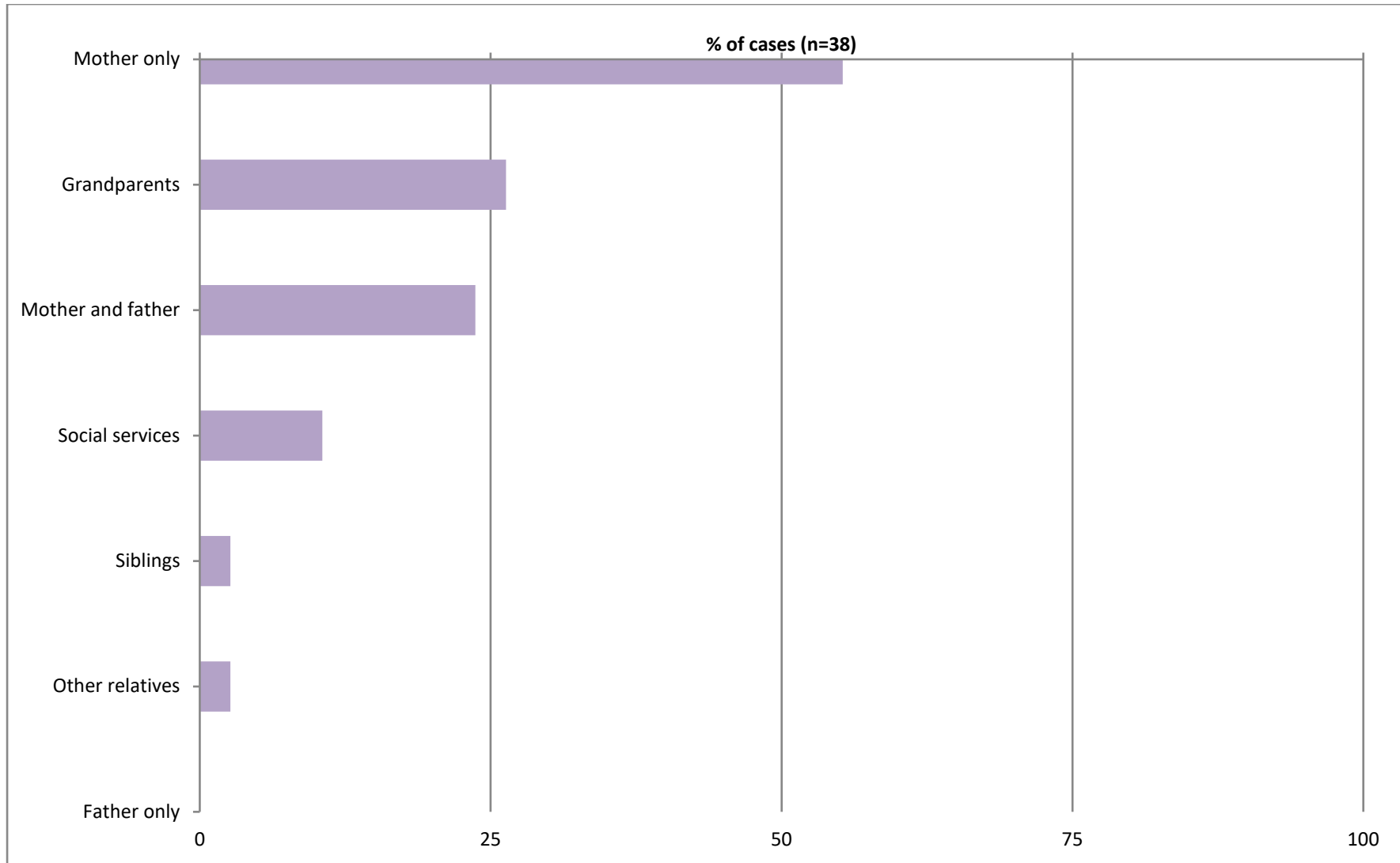


Figure 3.10: Primary caregiver

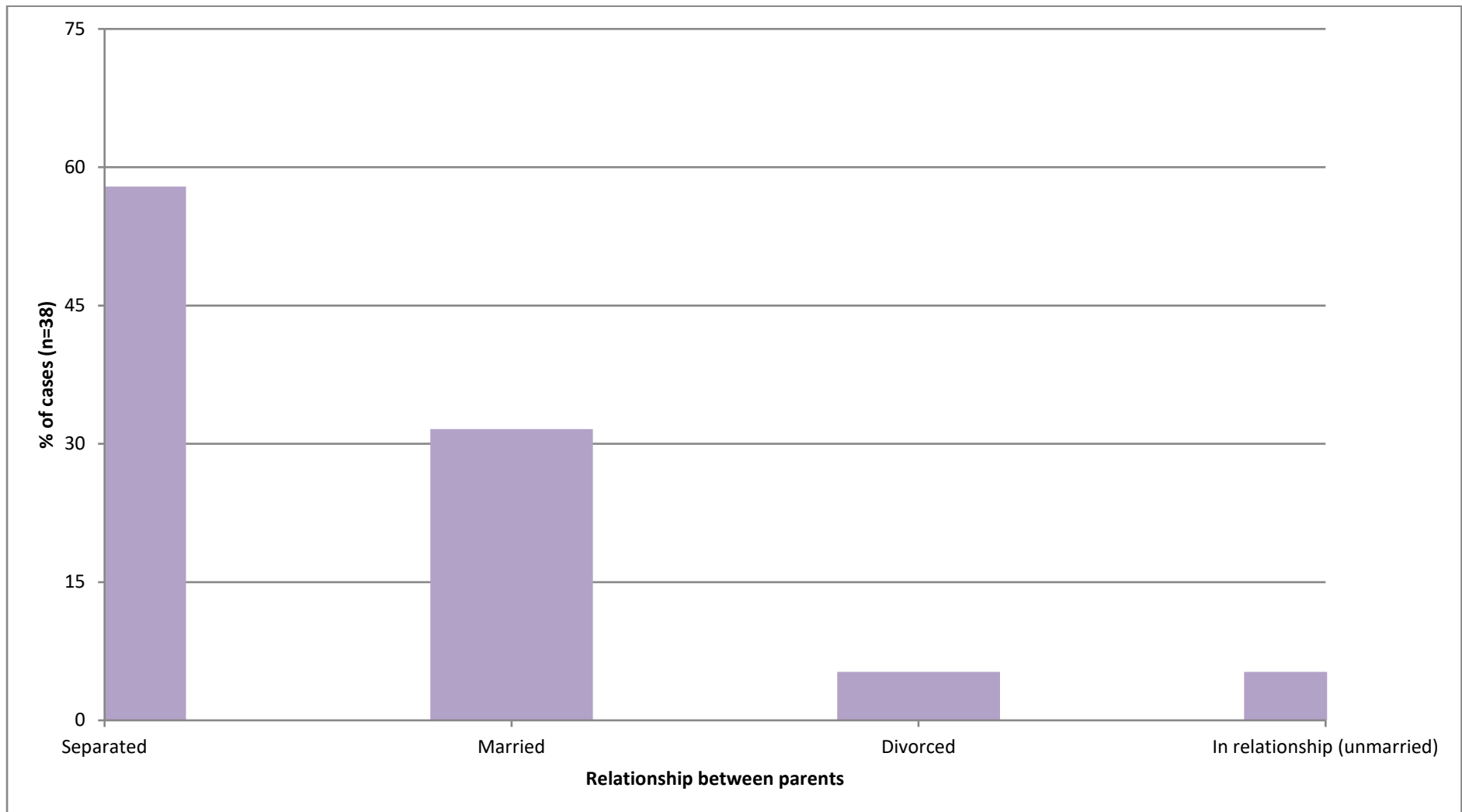


Figure 3.11: Relationship between parents at birth

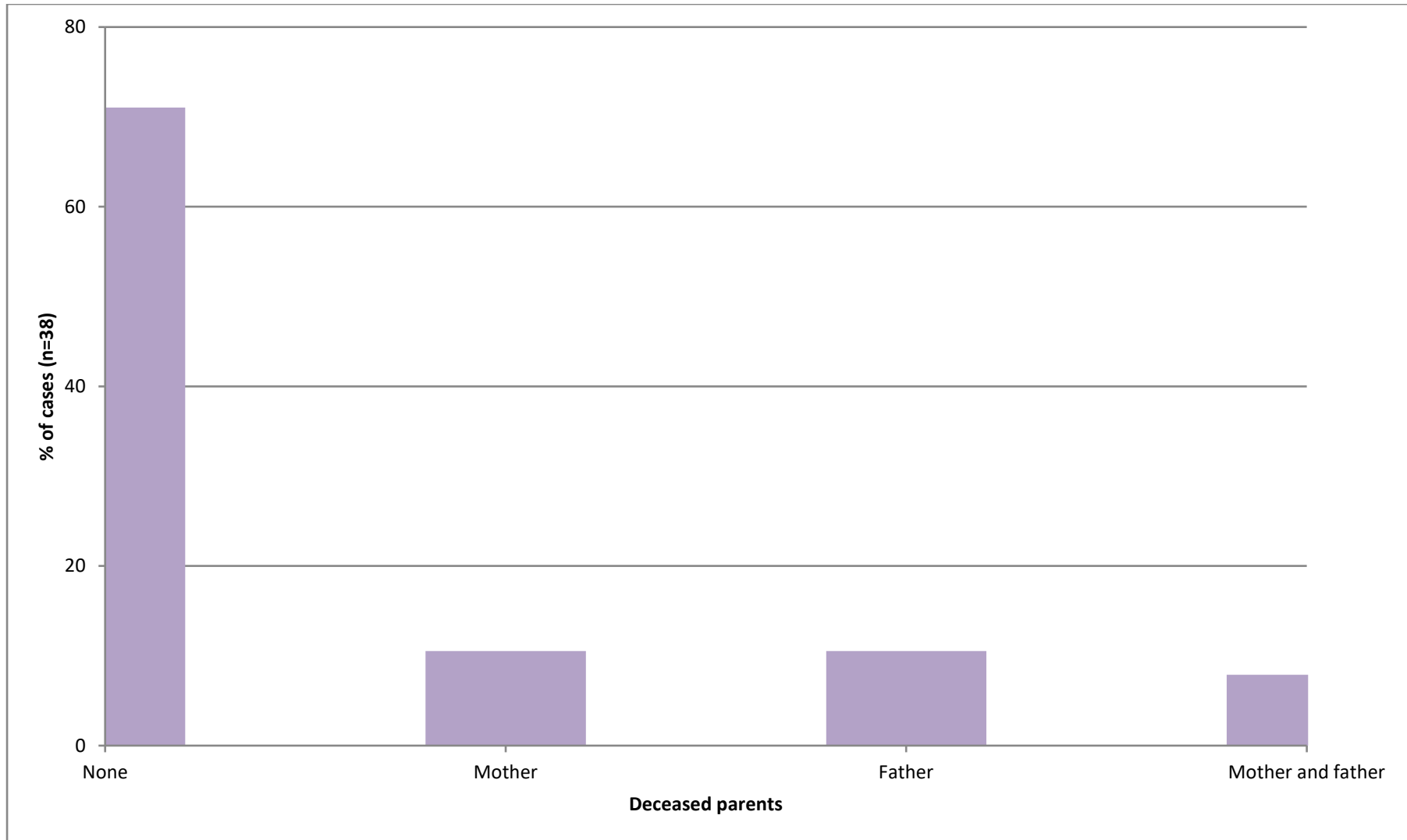


Figure 3.12: Deceased parents

CHAPTER FOUR - DISCUSSION

4.1 Background

This was a descriptive study aimed at identifying certain characteristics of the children assessed at Sterkfontein Hospital under the Child Justice Act. According to the literature, there are some similarities noted between juvenile delinquents and it was relevant to evaluate a group of juvenile delinquents to assess if they had similar characteristics as noted in the literature. In a lower middle-income country such as South Africa, where the resources are scarce, preventative management or care plays a huge role in preserving some of the already depleted funds for better use in other areas of service delivery. Some of these juvenile offenders place a huge burden on the state, especially if there is an element of recidivism, which would mean the criminal behaviour beginning very early and escalating over the years. Aiming to understand them better might be the key to inventing certain programmes that would aim to identify them early and prevent future criminal behaviour. The value of the implementation of early childhood parenting training programmes and the important roles of the mother and the father needs to be researched.

As stated earlier, in order for the study to have some statistical significance, we required 385 subjects. However, this was not possible as the hospital had not yet received such numbers for evaluation. It would be useful to possibly attempt a similar study after a few years when the hospital has evaluated more children. Although not statistically significant, there are a number of psychosocial factors which can be identified among the children sent to Sterkfontein Hospital for evaluation under the Child Justice Act.

4.2 Non arrival for appointments

Since the children were being evaluated on an outpatient basis, all of them had to be booked for their assessments. Upon being booked, a file is opened for the child and this file is used to store current available information about the case, as well as all assessments and interviews performed on the child. Due to the fact that files were being opened per appointment booking and not on arrival of the child for assessment, it became clear that not all children who were booked for this particular forensic

assessment actually arrived for their appointments. Attempts to contact the investigating officers or caregivers of these children to try and ascertain the reason for the children not arriving for their appointments proved in vain, as some skeleton files did not have contact details and in the few that did, the contact details were either incorrect or no longer valid. We are, therefore, forced to hypothesise the reasons why some of these children did not show up for their evaluations. It could possibly be that the charges were withdrawn for several reasons. The possibility of the children also having been automatically moved to a diversion programme cannot be ruled out. It is also a possibility that these children absconded, and a more unlikely possibility is that the children could have passed away. It is important to keep track of these children once they have begun to show signs of violent behaviour and it is the responsibility of all involved to ensure that they are followed up so as to protect society, as well as protect the children from falling through the cracks of our flawed social system.

4.3 Significance of age and susceptibility to peer pressure

These children were all below the age of 14 years during commission of the offence. They were also 10 to 18 years old during the time they were evaluated. The mean assessment age was 13 years. This implies that a majority of them were just less than 13 years old at the time they committed the crime. This is quite significant as this is around the onset of puberty, when children begin to figure out their individuality while at the same time trying to find other individuals with similar interests to them. This allows the children an opportunity to find a group where they can 'fit in' or which they can identify with. The result of this is usually putting the child at risk of being subjected to some kind of peer pressure. It is a well-established fact that adolescents tend to engage in more risky behaviour than adults, this seems to be evident in the elevated rates of experimentation with alcohol, tobacco, use of illicit drugs, unprotected sexual activity, violent and non-violent crime, and reckless driving. Early research seemed to be unable to identify the exact reasons why this occurred, however it has become clearer that one of the pertinent reasons for this risk taking is peer influence. Adolescents seem to have a lower resilience to peer influence and this resilience seems to increase with age. In some studies that were performed, girls emerged to be more resilient than boys (de Matos *et al.*, 2012.) In many places, crime statistics indicate that adolescents typically commit delinquent acts in peer groups, whereas

adults more frequently offend alone; furthermore, one of the strongest predictors of delinquent behaviour in adolescence is affiliation with delinquent peers, an association that has been attributed in varying proportions to peer socialization and friendship choices, wherein risk-taking adolescents naturally gravitate toward one another (Albert *et al.*, 2013). Fortunately, there are only records of two children who committed a crime together and both were sent for evaluation. The rest of the children were lone perpetrators.

4.4 Ethnicity

We have noted in the study the high number of black subjects, however we could not find evidence to explain why this occurred. We suspect this may simply be because of the country's demographics. It would be beneficial for this to be looked at in future studies when the sample size is bigger.

4.5 Offending patterns of cognitively impaired individuals

We found it interesting that rape was the prominent charge; of note was also that the children raped other younger children. 62% of the children accused of rape were in fact cognitively impaired. Although it was difficult to obtain studies that spoke specifically about young child offenders with cognitive impairment, several studies have reported on adult criminal offenders with cognitive impairment. What was observed is that they are more likely than other offenders to be charged with sexual offenses. In addition, sexual offenders with cognitive impairment have been found to commit more offenses against males and more offenses against children than other sexual offenders (Rice *et al.*, 2008) However, researchers seem to be divided as to why this is so. Some suggest that the reason for this is that sex offenders with intellectual impairment have high levels of sexual naivety, they lack knowledge about normal sexual relationships, they lack relationship skills, and they have difficulty mixing with the opposite sex. This would suggest that true sexual deviance is actually rare and suggests that circumstance and opportunity rather than specific sexual interests principally determine the victim choice and offense behaviour of sex offenders with intellectual impairment. This has been termed the "*counterfeit deviance hypothesis*." Other researchers have a different opinion. They seem to suggest that intellectually

deficient men tend to have more extreme paedophilic sexual interests than men with normal intellect (Rice *et al.*, 2008). Whatever the reason, what is consistent is that there is a direct link between sexual offending and impaired intellect. This factor is most alarming as it puts pressure on parents or adults to be more vigilant when children are playing with each other, especially if older intellectually impaired children are left alone with younger children without any adult supervision. Only two of the children had a previous criminal history. It would be interesting if these same subjects were included in a prospective study, which would follow them up to early adulthood with the aim to review how many would have committed other crimes. This would give us some insight as to whether these children were adolescent-limited or life-course persistent delinquents.

4.6 Assessments for cognitive impairment

Being a low middle income country, South Africa lacks a lot of resources. Part of assessing the children involved some form of cognitive evaluation. All available cognitive assessments depend on an individual's level of education. Another challenge for cognitive assessments is the fact that they are adopted from other countries and may not accurately reflect a person's intelligence when interpreted for South African subjects. Normative data for most tests of cognitive ability are predominantly based on monolingual, reasonably affluent, English first language individuals and these norms are still routinely applied to culturally and linguistically diverse individuals. (Cockcroft *et al.*, 2015). Past studies have also shown that, in addition to level and quality of education, cultural, linguistic and socio-economic factors can also affect IQ test performance. The South African education systems are vastly different and offer varying qualities of education. The former Model C and private schools were modelled on UK public schools, and then there is schooling provided by the Department of Education and Training, which continues to be constrained by limited resources and large classes (Cockcroft *et al.*, 2015). Due to lack of exposure to education or poor quality of education, especially in rural areas of this country, some people can score low on these tests; however, this would not be a true reflection of their intelligence.

In our study the measure of assessment utilised was the Senior South African Individual Scale – Revised (SSAIS-R). This test has been individualised for South

African subjects; however, it is still dependent on your level of education and, as already discussed earlier, the quality of education in South Africa is not the same across the board. For some individuals in our research project some scores could not be scaled for various reasons and for others their level of cognition was clinically determined by the assessing psychiatrist. The psychiatrist would review the child holistically and include academic functioning (reasoning, problem solving, planning, abstract thinking, judgement, academic learning and learning from experience), as well as adaptive functioning (communication, social participation, independent living and activities of daily life).

Cognition can at times ascertain if a person has the ability to be rehabilitated or if a person's behaviour can be modified and the child re-integrated into society. Cognition is also an important factor when considering fitness and responsibility.

Noting that 68% of the subjects had some level of cognitive impairment, it seems important that more educational support and resources should be available to provide children with academic difficulties with the appropriate input. In clinical practice, it is noted that children with academic difficulties, who are placed in an environment without any support, could develop behavioural problems and that this could at times result in increased criminal behaviour.

4.7 ADHD, Conduct Disorder and Criminality

Individual factors which were noted in the literature as being contributing factors to juvenile delinquency included ADHD, as cited by Loeber and Farrington (2000), as well as Conduct Disorder, as cited by Miller (2014.) It was, therefore, not surprising to note that both conditions were present in these subjects. Conduct Disorder, being the precursor to Antisocial Personality Disorder, is quite significant at 53% of the subjects. ADHD on the other hand was noted to be present in 34% of the subjects in this study. There is still a lot of controversy around the different identifiable factors in childhood, which could predict future delinquency. Some research seems to suggest that ADHD and Conduct Disorder are independent factors, while others suggest that it is the combination of the 2 of them together that is significant. Another controversial factor seems to be Conduct Disorder occurring on its own, verses when it occurs in combination with emotional problems (e.g., depression). Despite the current

controversy, what does seem to be notable is that the presence of Conduct Disorder or ADHD in childhood does seem to have some impact of future delinquency; however, the presence of emotional problems does not seem to carry the same risk (Moedre *et al.*, 2011). When it relates specifically to Conduct Disorder, some studies have attempted to look specifically at the varying symptoms and have concluded that the presence of cruelty towards animals can be an indicator of future violent offending. “Violence graduation predicts that the presence of cruelty to animals will precede interpersonal violence later in life, and that it is almost a natural progression as the intensity of behaviour escalates. Rehearsal may mirror graduation behaviour, but instead, provides the offender the opportunity to practice abusive behaviour on either more available or less important targets.” (Wilson and Norris, 2003). ADHD tends to be viewed as the lesser evil due to the fact that there is readily available treatment for it, which has also been proven to be quite efficacious. Identifying and treating ADHD early could assist in decreasing the number of children who find themselves participating in a life of crime. In South Africa there is a lack of centres for behaviourally challenging children and teens. Opening these centres and identifying those children in need of behavioural modification could also be something that is very useful.

4.8 Attachment difficulties and criminality

The origins of attachment theory stemmed from Bowlby’s work with young offenders back in 1944. Fourteen out of 44 teenage ‘thieves’ were identified as showing a lack of affection and little guilt towards their victims. More than 80% of these children had experienced maternal separation of over 6 months in their first 2 years. Of the 44 non offending controls only 5% had experienced maternal separation. Bowlby concluded that maternal separation could have an adverse effect on development in terms of emotions, behaviour, social relationships, and intellect (Moran *et al.*, 2017).

The DSM 5 describes 2 different conditions which form part of Attachment disorders: Reactive Attachment Disorder (RAD) and Disinhibited Social Engagement Disorder (DSED). Both conditions are noted to be a cause of severe social neglect, deprivation of basic emotional needs or frequent changes in caregivers. The symptoms for RAD include inhibited, emotionally withdrawn behaviour toward adult caregivers which might manifest as a child rarely or minimally seeking comfort when distressed, as well

as the child will rarely or minimally respond if comfort is offered during times of distress. These children seem to also have minimal social and emotional responsiveness towards others. They have limited positive affect and may have episodes of unexplained irritability, sadness or fearfulness that are evident even during nonthreatening interactions with adult caregivers. A child with DSED on the other hand, will interact and approach unfamiliar adults, he/she would portray overly familiar verbal or physical behaviour and would hardly check back with his/her adult caregiver after venturing away, even in unfamiliar settings. These disinhibited children would even be willing to go off with an unfamiliar adult with little or no hesitation.

Although the DSM 5 proposes 2 separate conditions, each with its own symptoms, what is more noticeable in practice is a combination of both inhibited and disinhibited symptoms in a single individual.

Several studies have shown the link between attachment disorders to other psychiatric illnesses as well as a specific link between attachment disorders and crime. "A survey of 300 offenders, aged 13-18, found that a third had experienced foster care, 36% had educational needs, 48% had difficulties with social relationships and 31% had mental health problems", (Chitsabesan *et al.*, 2006, as cited by Moran *et al.*, 2017). In our study, there seemed to be children who portrayed a range of disordered attachment styles and for some it was difficult to make a diagnosis of either RAD or DSED. We felt that if we used the strict criteria for attachment disorders, we would have missed a number of those who showed pathological attachment styles. It was for the above-mentioned reasons that we decided to rather use Attachment Difficulties instead of Attachment Disorders. This proved to be quite a substantial number of 34%. This is in keeping with the literature where it has been demonstrated that juveniles who offend tend to have abnormalities with attachment (Moran *et al.*, 2017). It is clear that if some of these conditions are identified early, some assistance could be given to the children in order to try and prevent a negative outcome in the future.

4.9 Perinatal vulnerability

The perinatal time is a very vulnerable period in one's development. Sometimes conditions that affect a foetus in utero, during birth and in the first few years of a baby's life can have longstanding consequences. Substances can affect the growing brain inside the uterus and result in future neurological deficits in an individual. Research shows that nicotine exposure especially has been noted in juvenile delinquents (Loeber and Farrington, 2000). Of these subjects, 13% had been exposed to nicotine and alcohol. The early exposure to these substances could have adversely affected their brain development, resulting in cognitive impairment and behavioural problems. Although the majority of the subjects were born at term via normal vaginal delivery, there was still 5% who suffered from birth asphyxia, and this also might be a contributing factor to the high levels of cognitive impairment which we observed. It was interesting to note that despite having 68% of subjects suffering from cognitive impairment, we only had 5% with delayed milestones. There could be several reasons for the high presence of cognitive impairment among our subjects. One of these has already been discussed earlier and relates to the currently available tests and the differences in quality of education in the South African context. This would include tests which are modified to adjust to the South African environment. However, some of the children's cognitive impairment was diagnosed clinically due to them being unsuitable for IQ testing. This was usually due to a language barrier, among other reasons. With regard to the milestones, it could also be argued that maybe poor recall by the caregivers or poor involvement of the caregivers in the child's development could have resulted in them being unaware of the delays in milestones.

4.10 Substance use and crime

There is an intimate relationship between substance use and criminal behaviour. At times the relationship between the two can be murky and confounding. Drugs can have both direct and indirect effects on violence and criminal behaviour. The drug-violence relationship is further complicated by the intoxicating doses and/or withdrawal effects of specific drugs. In a study by Sharma *et al.*, which was done in India in 2016, they looked at a group of juvenile delinquents in India who were staying at a home for juveniles under enquiry and explored these youths' sociodemographic features, as

well as their trends of substance use. What they concluded was that many juveniles involved with the justice system experience multiple personal, educational, and family problems. They also noted that substance use and involvement in criminal behaviour were interrelated – the greater the involvement in substance abuse, the more severe is the violence and criminality and vice versa. In their sample of 487 juveniles, 86% (n=421) had a history of substance use. They also concluded that poverty, broken families, and a history of criminality in the family can influence and act as predictor variables for substance use and criminality among juveniles.

It was, therefore, not surprising that in our study we had a significant 34% who were abusing substances. Although the figure does not seem as high as some in the literature, we thought it was significant. We also considered the reliability of the subjects when questioned about the substance use, and we wondered if the figure would not have been much higher if routine drug screens were actually performed on the subjects, either at the time of the arrests or during the actual assessments. Drug screening could be introduced and the possible rehabilitation of the subjects who test positive on the drug screen considered. None of the subjects had been recorded to have used substances around the time of the offence. This means all offenses were committed in a sober state. Again, here we questioned the reliability of the information provided by them.

4.11 Family structure, parenting skills and crime

As stated previously, a stable home environment, with responsible adults who have appropriate child-rearing practices, has been shown to have a positive outcome in children (Hoeve *et al.*, 2012 and Sharma *et al.*, 2016). Our subjects seemed to lack this particularly important factor. Only 24% lived with both their parents. The majority were being raised by relatives or in single parent households. A lot of the research and theory on the aetiology of problem behaviours in childhood and adolescence, often focus on the role of family in the development of antisocial behaviours. It has been noted that family structure plays a very important role and research has shown that youth from single parent families often have higher rates of problem behaviours including substance use, aggression, school dropout and teenage pregnancy; furthermore, youth from single parent families appear to be more susceptible to peer

pressure and more likely to make decisions without consulting a parent (Griffen *et al.*, 2014). Another observation in a lot of the research that relates to single parent households and problematic behaviours is that boys are at a greater risk than girls. Coupled with family structure, it is also important to acknowledge the role of the type of parenting. Good parenting involves close monitoring, frequent communication about important issues and regular daily involvement and interaction between parent/s and adolescent. Good parenting practices can have a positive influence on a child's behaviour – for example, a single mother with excellent parenting practices may increase resiliency in her adolescent son or daughter and may help the adolescent avoid involvement with substance use, delinquency, and aggression (Griffen *et al.*, 2014). It was noted that specifically those who had Conduct Disorder showed lack of parenting, leading to lack of supervision, which could have contributed to them developing behavioural problems. Father figures were also noted to be absent for most of our subjects.

4.12 Parental mental illness and effect on development of child and crime

26% of the subjects had a positive family psychiatric history. This was limited to psychotic and mood disorders. Our interest in a positive family psychiatric history did not only relate to its importance with regards to the hereditary (or genetic) nature of mental illness, we were also concerned about this as it also plays an important role in the caregiver/parent- child relationship and could affect development of the child and might also cause a disturbance in forming of attachments. Research indicates that the greatest risk to maternal mental health post-delivery is postpartum depression, with percentages varying from 10 to 40%; postpartum anxiety disorders occur at a rate of about 8.5% and post-partum psychosis is much rarer occurring in 0.1 to 0.2% of postpartum women (Hoffman *et al.*, 2017). Given the diverse mental health concerns that may occur in the postpartum period, the term perinatal mood and anxiety disorder (PMAD) had been used to better represent this range of disorders. Researchers have identified the significant impact of maternal psychopathology, specifically anxiety and depression, on various aspects of infant development. The American College of Obstetrics and Gynaecology (ACOG), as well as the American Academy of Paediatrics (AAP) have cited the impact of undiagnosed postpartum illness on child outcomes, including poor infant neurosynaptic development, early termination of breastfeeding,

and impact on early childhood cognitive, behavioural, language and motor development (Hoffman *et al.*, 2017). It is important to remember that infants exist and develop within the context of a growing relationship with their primary caregivers. The infant develops expectations that the adult attachment figures will sensitively and consistently meet, and these interactions set the stage for a strong bond and secure attachment relationship. In instances where this bond is poor, as may occur in the context of PMAD, the infant's needs are not reliably met or even undermined, resulting in an insecure relationship. When the attachment relationship is jeopardized, the consequences are often disturbances of infant behaviour and development, with longer term impact on later developmental stages – this also includes all the effects discussed earlier with regards to attachment difficulties.

4.13 Effect of parental offending on child

Only one child was noted to have a father who had features of antisocial personality disorder. This is one peculiar finding as we expected more to have witnessed violent/inappropriate behaviour from their parents. “Both mothers’ and fathers’ involvement in offending contributed to children presenting with high levels of aggression. Parental offending remained an important influence on early childhood aggression even after accounting for parental history of mental illness, or substance use disorders specifically, which also contributed to offspring aggression.” (Tzoumakis *et al.*, 2017).

4.14 Outcome of the CJA assessments

When the children are referred under the Child Justice Act, the requirement is that they be assessed for responsibility. The decision was taken by the forensic psychiatrist at Sterkfontein Hospital to report on both fitness and responsibility. It is also important to note that fitness becomes an issue only for those who are deemed to be responsible for their crimes, as only responsible children can be referred for diversion programmes. Sometimes the children can be referred in terms of the Criminal Procedure Act. None of the subjects in this study were referred in terms of the Criminal Procedure Act. Despite 68% of the individuals having been noted to have some degree

of cognitive impairment, 61% were found fit to stand trial and responsible for their actions. This emphasises the point that age, as well as cognitive impairment, does not necessarily equate to no responsibility.

CHAPTER FIVE - CONCLUSION

5.1 Ethics

Although this study involved information about children, the identities of the subjects were not revealed at any point. This was a retrospective record review. Data is anonymous and was grouped. Furthermore, each guardian signed a waiver of confidentiality at the initial interview. We only included completed cases, which meant that the subjects were all no longer being seen at the hospital. Ethics clearance was obtained from the Human Research Ethics Committee of the University of the Witwatersrand and permission from the CEO of Sterkfontein Psychiatric Hospital was also granted to us.

5.2 Limitations

When doing a retrospective record review, you are working with data that was not specifically collected for your particular research question. This type of research inevitably has a number of limitations which have discouraged many researchers from adopting this methodology. Incomplete documentation, including missing files, and information that is irrecoverable or unrecorded. These were some of the significant challenges that we faced. Particularly relating to missing information, was the age of the children at the commission of the offense. We would have liked to include this important detail, as opposed to only discussing the age of assessment. This would have allowed us to calculate the time between the commission of the crime and assessment, especially since it was noted that for 5% (n=2) of the children – a comment on their criminal capacity could not be concluded since they were assessed at least 2 years after the crime had been committed. Due to the difficulties in information gathering, we were also unable to evaluate the relationships between most of our variables. Some of the discussions we would have liked to include were a more in depth look at the comorbidities.

There were also difficulties with interpreting information found in the documents (e.g., acronyms) as well as variance in the quality of information recorded by medical professionals. Some of the abovementioned difficulties often lead to the underutilisation of this method of research, as well as the undervaluing and

questioning of the results. Like all retrospective file reviews, missing data in the files, as well as insufficient details in the available data, was experienced. Another major limiting factor was the sample size which was too small. This, however, is the first study of its kind (according to our knowledge); therefore, possible future studies when the hospital has completed more assessments are recommended. Despite the limitations there are many benefits to retrospective research, especially information which can be obtained and be an inspiration to further prospective research.

5.3 Recommendations

- It might be beneficial to look at the process of referring children for these assessments as the sample size suggests that only a small number of children were referred.
- Several children had psychiatric diagnoses, it is important to ensure that these conditions were managed, and the children were referred to the appropriate facilities for follow up.
- There seems to be a need for future studies in this field in order to investigate further some of the aspects which could not be discussed in this study, such as comorbidities. Further studies would also have the benefit of bigger sample sizes.
- There seems to be a need for integration between the 3 departments (Education, Justice and social) in order to effectively assist these children.

5.4 Conclusion

In reviewing our results, we noted striking similarities in the psychosocial factors mentioned in the literature and those noted in our subjects. Although this study had only aimed at describing the psychosocial profile of juvenile delinquents, the information obtained in it is a starting point for other studies in the field. Authorities involved with children in the South African justice system could also use the study as

a building block to certain interventions which they hope to put in place to prevent children from succumbing to a life of crime. The value of the implementation of early childhood parenting training programmes and the important roles of the mother and the father needs to be researched. Prevention of juvenile delinquency serves at-risk youths, their families, as well as the general public. Prevention services should be developed to include substance use treatment, family counselling, individual counselling, family planning and parenting education.

REFERENCES

Albert, D., Chein, J., Steinberg, L., 2013. Peer influences on adolescent decision making. *Current Directions in Psychological Science*, 22(2), pp. 114-120.

American Psychiatric Association. 2013. Diagnostic and Statistical Manual of Mental Disorders (DSM5). 5th Edition. New York: American Psychiatric Association.

Cockcroft, K., Alloway, T., Copello, E. and Milligan, R., 2015. A cross-cultural comparison between South African and British students on the Wechsler Adult Intelligence Scales Third Edition (WAIS-III). *Frontiers in Psychology*, 6, pp.1-11.

Daniel, W.W., 1999. Biostatistics: A Foundation for Analysis in the Health Sciences. 7th edition. New York: John Wiley & Sons.

De Matos, M., Simoes, C., Camacho, I. and AlvesDiniz, J., 2012. How can peer group influence the Behaviour of adolescents: explanatory model. *Global Journal of Health Science*, 4(2), pp. 26-35.

Dwyer, R.G. and Letourneau, E.J., 2011. Juveniles who sexually offend recommending a treatment program and level of care. *Child Adolescent Psychiatric Clinics*, 20, pp.413-429.

Farrington, D.P. and Loeber, R., 2000. Epidemiology of juvenile violence. *Child and Adolescent Psychiatric Clinics of North America*, 9(4), pp.733-748.

Griffin, K. W., Botvin, G. J., Scheier, L. M., Diaz, T. and Miller, N. L., 2000. Parenting Practices as predictors of Substance use, Delinquency and Aggression among Urban Minority youth: Moderating Effects of Family Structure and Gender. *Psychology of Addictive Behaviours*, 14(2), pp.174-184.

Hoeve, M., Stams, G.J.J., Van der Put, C.E., Dubas, J.S., Van der Laan, P.H. and Gerris, J.R.M., 2012. A Meta-analysis of attachment to parents and delinquency. *Journal of Abnormal Child Psychology*, 40, pp.771-785.

Hoffman, C., Dunn, D. M. and Njoroge, W. F. M., 2017. Impact of Postpartum Mental Illness upon infant development. *Child and adolescent disorders*, 19:100.

Klinterberg, B.A., Andersson, T. and Magnusson, D., 1993. Hyperactive behaviour in childhood as related to subsequent alcohol problems and violent offending: A longitudinal study of male subjects. *Personality and Individual Differences*, 15, pp.381-388.

Loeber, R. and Farrington, D., 2000. Young children who commit crime: Epidemiology, developmental origins, risk factors, early interventions, and policy implications. *Development and Psychopathology*, 12, pp.737-762.

Luukkonen, A-H., Raila, K., Hakko, H. and Rasanen, P., 2010. Bullying behaviour and substance abuse among underage psychiatric inpatient adolescents. *European Psychiatry*, 25, pp.382-389.

Luukkonen, A-H., Rasanen, P., Hakko, H., Raila, K. and The Study-70 Workgroup. 2010. Bullying behaviour in relation to psychiatric disorders and physical health among adolescents: A clinical cohort of 508 underage inpatient adolescents in Northern Finland. *Psychiatry Research*, 178, pp.166-170.

Miller, L., 2014. Juvenile crime and juvenile justice: Patterns, models and implications for clinical and legal practice. *Aggression and Violent Behaviour*, 19, pp.122-137.

Moffitt, T.E., 2005. The new look of behavioural genetics in developmental psychopathology: gene-environment interplay in antisocial behaviours. *Psychological Bulletin*, 131(4), pp.533-554.

Moffitt, T.E., 1993. Adolescence-Limited and Life-Course-Persistent Antisocial Behaviour: A Developmental Taxonomy. *Psychological Review*, 100, pp.674-701.

Moran, K., McDonald, J., Jackson, A., Turnbull, S. and Minnis, H., 2017. A study of Attachment Disorders in young offenders attending specialist services. *Child Abuse and Neglect*, 65, pp. 77-87.

Mordre, M., Groholt, B., Kjelsberg, E., Sandstad, B. and Myhre, A.M., 2011. The impact of ADHD and Conduct Disorder in childhood and adult delinquency: a 30 years follow-up study using official crime records. *BioMed Central Psychiatry*, 11:57

Pulkkinen, L., 1987. Offensive and defensive aggression in humans: A longitudinal perspective. *Aggressive Behaviour*, 13(1), pp.97-212.

Remschmidt, H. and Walter, R., 2010. What becomes of delinquent children? *Deutsches Arzteblatt International*, 107(27), pp.477-483.

Rhee, S.H. and Waldman, I.D., 2002. Genetic and environmental influences on antisocial behaviour: a meta-analysis of twin and adoption studies. *Psychological Bulletin*, 128(3), pp.490-529.

Rice, M.E., Harris, G.T., Lang, C. and Chaplin, T.C., 2008. Sexual preferences and recidivism of sex offenders with mental retardation. *Sexual Abuse: A Journal of Research and Treatment*, 20(4), pp.409-425.

Sakuta, T., 1966. Social factors leading to juvenile delinquency. *Keio Journal of Medicine*, 45(4), pp.287-295.

Sharma, S., Sharma, G. and Barkataki, B., 2016. Substance use and criminality among juveniles-under-enquiry in New Delhi. *Indian Journal of Psychiatry*, 58, pp.178-182.

Sarkar, S.P., 2007. Too young to kill? US Supreme Court treads a dangerous path in Roper v. Simmons. *The Journal of the American Academy of Psychiatry and the Law*, 35(3), pp.364-372.

Smit, A., 2011. Research report: A Quantitative statistical presentation of cases diverted to NICRO programmes by courts in South Africa from June 2009 to May 2010. Cape Town: NICRO.

Snider, C. and Lee, J., 2009. Youth violence secondary prevention initiatives in emergency departments: a systemic review. *Canadian Journal of Emergency Medicine/Journal Canadien de la Me´decine D'urgence*, 11(2), pp.161-168.

Tuvblad, C., 2013. Genetic and environmental influences on antisocial behaviour. *Journal of Criminal Justice*, 41(5), pp.273-276.

Tzoumakis, S., Dean, K., Green, M. J., Zheng, C., Kariuki, M., Harris, F., Carr, V. J. and Laurens, K., R., 2017. The impact of parental offending on offspring aggression in early childhood: a population-based record linkage study. *Social Psychiatry and Psychiatric Epidemiology*, 52, pp. 445-4555

Paul Wilson and Gareth Norris. (2003) "Relationship between criminal behaviour and mental illness in young adults: conduct disorder, cruelty to animals and young adult serious violence". http://epublications.bond.edu.au/hss_pubs/30

Legislation

Child Justice Act 75 of 2008

Criminal Procedure Act 51 of 1977

APPENDIX B



**health and
social development**
Department: Health and Social Development
GAUTENG PROVINCE

**STERKFORTEIN HOSPITAL
CLINICAL DEPARTMENT**
Enquiries: *Dr. D. Hoffman*
Telephone : (011)951-8341
Facsimile : (011) 951-8391
e-Mail: Hannie.Smith@gauteng.gov.za

Mr. M.J. Mapunya
Chief Executive Officer
Sterkfontein Hospital
KRUGERSDORP

Dear Mr. Mapunya

**STUDY : A PSYCHOSOCIAL PROFILE OF CHILDREN REFERRED TO STERKFORTEIN HOSPITAL
FOR ASSESSMENT OF CRIMINAL RESPONSIBILITY UNDER THE CHILD JUSTICE ACT
(75 OF 2008)**
RESEARCHER: DR. T.N. MHLANE

The above study was discussed at the Research Committee meeting. We recommend that permission be granted that Sterkfontein Hospital be used as a site for the above research.

However, on page 10, point 8 – Limitations – the researcher should describe how this problem will be dealt with.

Upon completion of the study, a copy thereof should be submitted to Sterkfontein Hospital

Thank you.

DR. D. HOFFMAN
ACTING CHAIRPERSON: RESEARCH COMMITTEE
11/08/2015

Approved.

Mr M.J. Mapunya Bcur Edu & Admin (UP)

CHIEF EXECUTIVE OFFICER
MR. M.J. MAPUNYA
CHIEF EXECUTIVE OFFICER
2015/08/11

APPENDIX C

				neighbourhood			birth			parents					diagnosis								
	sex	age	race	violent	Non vio	Prenatal subst	term	prem	weight	M	S	D	Ab	Criminal hx	psych	med	charge	resp	Repeat offender	scholar	gr	IQ	
1																							
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							