A RETROSPECTIVE ANALYSIS OF CHILDREN WITH AND WITHOUT DISABILITIES ATTENDING THE TEDDY BEAR CLINIC, JOHANNESBURG.

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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 Science in Medicine: Paediatric Neurodevelopment.

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DECLARATION

I, Marilena Deroukakis declare that this research report is my own work. It is being submitted for the Degree of Master of Science in Medicine in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other University.

---------- day of ----------, 2010.

DEDICATION

To my loving family for their support

ABSTRACT

The intersection of two marginalised groups of children, the disabled and the abused, was the focus of this research report. The study examined data from the Teddy Bear Clinic over an eight-year period and detected differences in the prevalence of sexual abuse, physical abuse and neglect of disabled and non-disabled children. The population of disabled-abused were further classified according to age, population group and gender in order to elucidate relationships between variables that might affect prevalence of maltreatment. A summary of the results shows that specific sub-populations of the disabled (the physically, mentally and learning disabled) had prevalence rates peculiar to them. The mentally and physically disabled had increased rates of sexual abuse, whilst the learning disabled had increased prevalence for neglect. Analysis of those children with multiple disabilities revealed no risk for neglect but they were at increased risk for sexual abuse. Disabled children are therefore not a homogeneous group.

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LIST OF ABBREVIATIONS

Acquired Immune Deficiency Syndrome- AIDS

Canadian Incidence Study-CIS

Human Immunodeficiency Virus- HIV

National Centre for Child Abuse and Neglect -NCCAN

Sexually Transmitted Disease -STD

South African Police Service - SAPS

Teddy Bear Clinic- TBC

1 Introduction

"A nation's greatness is measured by how it treats its weakest members".

-Mahatma Ghandi

The "weakest members" under investigation in this report are disabled children who have been maltreated. Children are generally regarded as vulnerable, the disabled as being at risk and the maltreated as being marginalised. The study explores how variations in disability (physical, intellectual and mental) and maltreatment (sexual abuse, physical abuse and neglect) compare with the non-maltreated and the non-disabled. Children who have a physical, mental or learning disability and who have *subsequently* been subject to maltreatment (sexual, physical or neglect) are the essence of this research report. The following questions are raised: Is the prevalence of abuse of disabled children higher than that of non-disabled children? Is the extent of the abuse the same for all population groups, ages and genders? Does one type of disability have a greater prevalence of a particular type of abuse than another?

The study aims to answer the above-mentioned questions and in so doing to bring to light the extent and nature of the maltreatment of this sub-population.

1.1 The "Discovery" of Child Abuse

The recognition of child abuse as a public health issue is a relatively recent global phenomenon. Contemporary conceptions of children as beings that ought to be protected and nurtured only emerged in the last hundred years (Miller-Perrin and Perrin, 2007). The full recognition of child abuse as a social problem was not complete until 1962 when Dr. Kempe first described the "Battered Child Syndrome". It was the first time that child maltreatment had been defined as a clinical condition with diagnosable medical and physical symptoms resulting from deliberate physical assault (Runyan, Cox, Dubowitz, *et al,* 2005). With the medical fraternity's influence on other advocacy groups fighting for child protection, the movement gained momentum in modern society. Child sexual abuse, neglect and psychological abuse only came to be recognised as problems only after children were perceived as needing special protection (Miller-Perrin a Perrin, 2007).

1.2 Definitions of Maltreatment

Creating uniform definitions of maltreatment has been one of the greatest obstacles in studying child maltreatment. Difficulties in defining types of maltreatment and the ambiguity of measures used in research remain a concern for researchers, practitioners and policy-makers (Runyan, *et al,* 2005). The problem is compounded by variations in legal, social, medical and research categorisations of abuse (Dawes and Ward, 2008). However,

without consensus on definitions, the operationalisation of constructs cannot occur, resulting in research that lacks rigour and comparability.

1.2.1 Defining Sexual Abuse

According to Finkelhor (1994), child sexual abuse has two basic elements:

a) *Sexual acts involving a child* -which are activities intended for sexual stimulation. The activities may be contact (penetration or non-penetration) or non-contact (such as exhibitionism, voyeurism or child pornography)
b) *An abusive condition*- where the perpetrator has either a large age gap or the advantage of maturity over the child; or is in a position of authority over the child; or activities are carried out using trickery or force.

The Canadian Incidence Study (CIS) captured data that corresponded to the following categories of sexual abuse: penetration, attempted penetration, oral sex, fondling, sex talk, voyeurism and exhibitionism (Trocmé, MacLaurin, Fallon, *et al*, 2001).

1.2.2 Medical Diagnosis of Child Sexual Abuse

Clinical information obtained by medical personnel is an important part of the assessment of sexual abuse, as the physical examination has social and legal consequences for the child and the family (Sinal, Lawless, Rainey, *et*

al 1997). Categories to describe child sexual abuse findings have been proposed as: normal, non-specific abnormalities, abnormalities suggestive of abuse and abnormalities indicative of abuse (Muram, Heger, Finkel, *et al,* 2003). Forensic medical examinations require blood tests and cultures in order to detect sexually transmitted diseases (STDs) such as gonorrhoea and syphilis.

Despite the fact that sophisticated diagnostic techniques are used in the investigation of child abuse, the findings are often not specific to child abuse. For example, STDs may have been vertically transmitted and anatomical abnormalities of the hymen or anus may not be distinguishable from non-specific findings of abuse (Muram, *et al,* 2003). Studies indicate that the child's history influences the interpretation of findings leading examiners to interpret ambiguous or non-specific findings as signs of abuse (Muram, *et al*, 2003; Sinal, *et al,* 1997). Emphasis needs to be placed on the child's description of sexual molestation rather than genital or laboratory findings, as it is the former that will usually establish the diagnosis of abuse (Laraque, DeMattia and Low, 2006). Physical injury is only one component of the trauma sustained and sexual abuse should not be ruled out on the basis of a normal physical examination (Van As, Withers, du Toit, *et al,* 2001).

1.2.3 Defining Physical Abuse

Ambivalence regarding the usefulness and harm of corporal punishment, as well as cultural and social practices cloud the definition of physical abuse (Johnson, 2004). There seems to be consensus that physical abuse results from the behaviour of a caregiver causing injury to the child.

Trocmé, *et al* (2001) describe physically abusive behaviour as:

- Shaking, pushing, grabbling or throwing a child;
- Hitting a child with the hand;
- Punching, kicking or biting a child;
- Hitting a child with an object, and
- Other (including: choking, strangling, stabbing and abusive use of restraint)

1.2.4 Diagnosis of Child Physical Abuse

There are no evidence-based guidelines to aid clinicians in discriminating between abusive versus accidental trauma (Pierce, Kaczor, Aldridge, *et al,* 2010). However, imaging studies are important as they provide additional, objective evidence in the evaluation of possible, inflicted injury. The dating of skeletal injuries may provide investigators with critical temporal data which can help to identify potential perpetrators (American Academy of Pediatrics, 2009).

Unsurprisingly, there is a lack of perfect agreement as to what constitutes clinical evidence of abuse, and as in the case of sexual abuse, there is a strong reliance on the history of the case (Muram, *et al*, 2003).

1.2.5 Defining Neglect

Neglect amounts to maltreatment and is often accompanied by it. Paradoxically, child neglect has been a 'neglected' social issue despite the fact that its prevalence and sequelae are far more serious than child abuse (McSherry, 2007). Neglect is generally experienced over a greater length of time with harm developing insidiously and without obvious and immediate impact (Dubowitz, 2007). As opposed to abuse, where there may be a situation-specific crisis, neglect tends to be a long-term developmental issue with a lower public profile (Dickens, 2007).

Neglect involves a failure to meet the child's basic physical, intellectual, emotional and social needs. It is considered as a possible diagnosis for children who are poorly cared for, not fed properly, improperly clothed, denied basic necessities and proper medical care, or treated with indifference to a degree that appears to cause serious damage or suffering (Dickens, 2007).

From the above definition, issues relating to the paradox of "neglect of neglect" become obvious (Dubowitz, 2007). Firstly, the definition lends itself to ambiguity with regard to what constitutes "basic" needs, "serious"

damage or "improper" clothing. In this light, McSherry (2007) explains how the definition of child neglect is tantamount to establishing "minimally adequate levels of care". Whatever constitutes a threshold of care and how this may vary from child to child and from culture to culture is a highly contentious matter. As English, Thompson, Graham, *et al.* (2005, p.192) explain: "neglect is the *absence* of a desired set of conditions or behaviours, as opposed to the *presence* of an undesirable set of behaviours". Since there is no legal guideline from which to operationalise "neglect", its diagnosis is often subjective and legal prosecution occurs only when a dramatic event has taken place (Dickens, 2007).

Secondly, the cultural values associated with minimal levels of care involved in child-rearing are not taken into account. For example, in some cultures it is perfectly acceptable to leave children at home alone with an older sibling (Johnson, 2002).

A third issue relates to the question of the inherent ability of parents to care for their children financially, whereupon poverty becomes an issue of national neglect. Impoverished parents may not have the means to feed, clothe or house their children (or themselves) adequately. Addressing poverty appears to be the way to ensuring that children's needs are met and thereby addressing neglect. On another level, governments which fail to provide nourishment for their citizens are considered to be neglecting them. The "grey area" of neglect is illustrated by Dubowitz (2007) who contends

that, in certain cases, what constitutes neglect may be the lesser of two evils, such as when a child is a caregiver to siblings so that a parent may go to work. It is also difficult to distinguish between neglect that occurs due to circumstances beyond the caregivers' control and that which occurs due to the caregivers' inattention to the child's situation in spite of the capacity to act (Dawes and Ward, 2008).

1.3 Prevalence Studies of Child Abuse in South Africa

Due to South Africa's turbulent history of apartheid, the issue of child abuse has important implications. According to Walker and Louw (2003), South Africa has the highest prevalence of sexual assault in the world.

In a nation-wide study of rape and sexual coercion, forced sexual initiation was reported by "almost a third" of adolescent girls (Jewkes and Abrahams, 2002). Dunkle, Jewkes, Brown, *et al* (2004) established that 55% of women attending an antenatal clinic in Soweto had experienced physical/sexual partner violence, and 8% had been sexually assaulted as children.

A recent review by the *Lancet* reported similar findings: 39% of females reported having undergone some form of sexual violence before the age of 18 years. The rape dockets examined in Gauteng revealed that 40% of reported rapes were under the age of 18 years and 15% were under the age of 12 years (Seedat, Van Niekerk, Jewkes, *et al*, 2009).

A countrywide survey of school boys between the ages of 10 and 19 years, found that 9% had experienced forced sex in the last year, and, of those boys over the age of 18 years, 44% reported ever having non-consensual sex (Andersson and Ho-Foster, 2008).

The incidence of child sexual abuse in sub-Saharan Africa is reportedly increasing. Lalor (2004) offers the following reasons for this trend:
a) **rapid social change** due to the disintegration of tribal authority and associated factors such as migration, inter-population marriage and socio-economic demands;
b) **HIV/AIDS avoidance strategies** and beliefs in the "cleansing" nature of sex with virgins and young girls;
c) **male-dominated social structures** where beliefs in the "uncontrollability" of male sexual urges and the role of physical force (rape) in sexual relations is a common theme.

Disabled females in Malawi attributed the increase in sexual abuse in their population partly to HIV "cleansing" and partly because of the increased use of alcohol and drug abuse (Kvam and Braathen, 2008). Lachman (2004) also comments that in nations where the major issues are the effects of poverty, war, corruption and HIV/AIDS, individual rights are often neglected. This has important implications for the 'weakest' individuals i.e. the disabled, who may experience the neglect of human rights more acutely.

1.4 The Monitoring of Child Abuse in South Africa

Historically, little was known about child sexual abuse in South Africa because children of colour were excluded from the research. It was White, and then later, Coloured and Indian children who were seen as victims of abuse (Pierce and Bozalek, 2004). Only recently have Black children been included in the analysis of child abuse, resulting in difficulties in establishing the extent of maltreatment because of a paucity of information regarding child abuse offences (Jewkes and Abrahams, 2002).

Despite South Africa's progressive Constitution and extensive legislation to protect children against abuse, there is no common or single service delivery process through which abused children are able to access child protection services (Pierce and Bozalek, 2004). Therefore, children enter the system at various points, such as through social workers, health professionals, teachers or the police (September, 2006). Not only do current data draw on different sources, different types of evidence are used as are different definitions of abuse (Dawes and Mushwana, 2007). This diversity of entry point and definitions means that the full extent of child abuse in South Africa is not known (Naidoo, 2000). Furthermore, there is no *national* monitoring system in place to provide estimates of the extent of child maltreatment despite the fact that the Children's Act (No.38 of 2005) provides Child Protection Registers that can be used for monitoring purposes (Dawes and Mushwana, 2007).

Data on the prevalence and incidence of child maltreatment are necessary to gain the knowledge of the extent of the problem and in order to provide sound backing to policy and programmes (Dawes, Borel-Saladin and Parker, 2004; Naidoo, 2000).

1.4.1.1 The Under-reporting of Child Abuse

As a phenomenon that is illicit by its nature and occurs in private spaces, accurate reporting of child abuse will always be a challenge (Dawes, *et al*, 2004). Under-reporting remains an obstacle to reliable and valid information regarding child maltreatment worldwide and it is recognised that cases that are brought forward represent only a portion of the real prevalence of abuse.

Although children form part of a greater ecosystem (e.g. healthcare, education, community) and it is presumed that role-players in these larger systems will detect maltreatment and will report suspicions of abuse to the relevant authorities, this if often not the case.

Under-reporting by medical doctors in Australia has been the topic of research by Haeringen, Dadds and Armstrong (1998). Practitioners who opt not to report a case of potential child abuse and neglect reportedly do so due to a lack of knowledge regarding maltreatment and a lack of faith in the system to respond to such reports. In a similar vein in the United States, Flaherty, Jones and Sege (2004) found that primary care practitioners

expressed a reluctance to report the abuse because they were uncertain of the diagnosis and felt that they could work with the family without outside intervention. Other reasons cited were questions regarding what constituted "reasonable suspicion" and what level of concern should be reported by mandated reporters. (Levi and Brown, 2005; Gilbert, Kemp, Thoburn, *et al*, 2009; Theodore and Runyan, 2006).

The extent of under-reporting of abuse in the disabled population is not known. Culturally, there may be shame associated with being either disabled or abused. On a social level, there may be fear of institutionalisation of the child (and the potential of subsequent abuse) or under-reporting may be due to disenchantment and suspicion of the legal system. On an infrastructural level, raw data regarding disability are often not collected routinely due to financial, educational and time constraints. The lack of systematic gathering of information on disability status creates an obstacle to research, leading to a further disservice to an already vulnerable, marginalised group.

1.4.2 Administrative Data

Information captured from sources where victims of abuse are interviewed can help to complete the profile of prevalence of child maltreatment. Administrative data possess important virtues: they are readily available; inexpensive to acquire; computer-readable and typically encompass entire regional populations or well-defined sub-populations (Iezzoni, 1997). For

administrative databases to be useful, they need to collect data according to uniform principles and should be stored in a single location (Drake and Jonson-Reid, 1999).

The three authorities collecting different information on aspects of child abuse are discussed, below:

1.4.3 Police Monitoring of Child Abuse

Police data are one of the sources on which to base an assessment of the extent of crimes against children. The Child Protection Unit (CPU) keeps national records on child abuse offences reported to the police and from these records, it appears that the numbers of reported child maltreatment cases are rising (Jewkes, Penn-Kekana and Rose-Junius, 2005). However, it is uncertain as to whether this is due to a real increase or due to greater public awareness. Dawes, *et al* (2004) point out that the police records are not valid child abuse data but reports on crime categories, which differ in definition to the technical literature that describe child maltreatment are. Furthermore, a reported case of crime against a child does not constitute a confirmed case of abuse as the case may be withdrawn, or the accused may be acquitted for a variety of reasons, one of which may be the lack of a reliable witness (Dickman and Roux, 2005).

1.4.4 Child Welfare Agency Sources of Child Maltreatment

Allegations of abuse are reported to child welfare agencies. Dawes and Mushwana (2007) contend that welfare agencies are likely to provide more reliable estimates of the incidence of abuse than the South African Police Service (SAPS) crime information system. However, this potential for reliable estimates of abuse is thwarted by a lack of agreement between agency staff on what constitutes abuse and by a lack of congruence on definitions between welfare organisations (Dawes, *et al,* 2004).

1.4.5 Medical Sources of Child Maltreatment Data

General Practitioners (GPs), district surgeons and hospitals are all potentially useful sources of data on child maltreatment (Dawes, *et al*, 2004). Although data from GPs have been studied regarding reasons for not reporting child maltreatment, studies using GPs' case accounts of child abuse and neglect have not been carried out. District surgeons' records also offer an opportunity to create a more complete picture of the incidence of abuse in children along with related clinical, geographical and crime-related information. Hospital data offer some additional pieces to the puzzle of prevalence of child maltreatment as many victims of sexual and physical abuse may first be presented to hospitals. Protocols have evolved for the assessment of child abuse. For example, acute evaluations (less than 72 hours after the incident) are done in hospital emergency departments

whilst non-acute evaluations are performed by multi-disciplinary teams in specialty areas in child advocacy centres (Laraque, *et al,* 2006).

1.5 Child Risk Factors of Abuse

An examination of the characteristics of a child as a risk factor ignores the ecological framework in which both disability and abuse occur. The child, parent, community and culture are all nested within one another and variables within each affect the consequences of abuse (Sidebotham and Heron, 2006).

Children who are at risk of being maltreated have a low birth weight and are perceived negatively by their mothers, a finding that has been substantiated by an increased risk to children born from unwanted pregnancies (Sidebotham and Heron, 2006; Barker and Hodes, 2004). The strongest social risk factor arose from the effects of socio-economic deprivation (Sidebotham and Heron, 2006). Children who are also at risk are those children with a history of prematurity or separation from the mother or principal caregiver; children who were unplanned, or cases where there are multiple births or less than 18 months between siblings (Barker and Hodes, 2004).

Research by Spencer, Devereux, Wallace *et al* (2005) has noted that factors that place *disabled* children at an increased risk are often related to social, cultural and economic issues and not necessarily to the actual disability.

Therefore, creating a model of causality in studying abuse requires that the co-morbid effects of poverty, unemployment, alcohol and drug abuse and other social problems be accounted for. A causal model also presumes that children are part of a health system before the abuse occurs, which may not necessarily be the case in South Africa. A group of children who are both abused and disabled may be heterogeneous in terms of their aetiology in that some were abused because they were disabled and others become disabled because they were abused.

1.6 Childhood Disability in South Africa

In areas of South Africa where there is poor access to medical resources, disabilities are not only more likely to occur but also less likely to be detected. Obtaining a true measurement of childhood disability is therefore fraught with difficulties owing to a lack of resources (Lachman, 2004). In addition, a true measurement of childhood disability requires a standardised definition of "disability" and a "child". The tools to measure disability need to be uniform across the rural and urban areas assessed. For the above reasons, the prevalence of childhood disability in South Africa is merely an estimate.

The disability rate ranges from 33 per 1000 in kwaZulu-Natal using the "Ten Questions Questionnaire" to 64 per 1000 in Mpumalanga using a developmental screen (Couper, 2002). Saloojee, Phohole, Saloojee, *et al (*2006) estimate that the prevalence of disability in South Africa in children

under the age of nine years is between 5,2% and 6,4%. They extrapolate these percentages to estimate that there are approximately one million disabled children currently living in South Africa.

1.6.1 Disabled Children as Easy Targets for Maltreatment

A potential perpetrator chooses victims who have little self-esteem, few good peer relations and fewer possibilities to inform others of the event. Children with disabilities often fall into this category (Kvam, 2000). Disabled children are especially vulnerable to abuse due to their increased dependence on adults (Westcott and Jones, 1999) and therefore they are less able to defend themselves. Hesselink-Louw and Olivier (2001) contend that in children who are institutionalised due to their disability, abuse is not only difficult to investigate but also more likely to occur. This is because they are frequently exposed to, and are more accessible to, potential offenders. As children with disabilities lack either the physical ability or mental capacity to care for themselves, they are also accustomed to bodily intrusions (Faller, 2007). Assistance in connection with personal care activities also allow for illegitimate intimate activities to be concealed (Westcott and Jones, 1999).

1.6.2 Disclosure in Disabled Children

Children who are disabled have a greater prevalence of abuse and yet they are less likely to disclose it (Kvam, 2000). According to Faller (2007), barriers to disclosure pertain to carers, children and professionals

investigating the alleged abuse. Kvam (2000) found that caregivers tended to attribute changes in behaviour to the child's disability without considering abuse. The disabled child may exhibit behaviours that indicate abuse (such as self-mutilation and repetitive behaviours), but which may be attributed to their impairment and therefore go unnoticed (Westcott and Jones, 1999; Faller, 2007). Similarly, responses such as depression, anger and self-blame can result from the experience of abuse or of being disabled. Obtaining an accurate report of child abuse from the child is fraught with ethical considerations regarding consent of the parents, competence of the child to report the incident, privacy, confidentiality, anonymity, justice and inclusion (Cashmore, 2006).

Disabled children who do not disclose abuse may not be aware of what constitutes appropriate physical contact (Hesselink-Louw and Olivier, 2001); even if disabled children appreciate that the abuse is wrong, because of their dependence on the offender, they often fail to report it (Faller, 2007) or they may co-operate with demands for secrecy (Johnson, 2004). As it is recognised that disabled children are often abused by individuals responsible for their care, professionals investigating alleged abuse cases may obtain a distorted perception of the incident. Moreover, due to the fact that disabled children experience social isolation, they may experience feelings of guilt relating to the abuse and a fear of retribution (Faller, 2007).

The disabled child who intends to disclose the abuse may have difficulty creating or linking the sounds to form words and some children may not be able to communicate through spoken language. Children who have some verbal abilities may have to work very hard at articulation. This is beyond the tasks of memory, retrieval and communication. Participation in an interview may be stressful for the child and consequently may increase the levels of acting out behaviours (Faller, 2007). In addition, the child's communication method may require augmentation in order to include vocabulary specific to the abuse.

The protection of children's rights and those of the disabled are emphasised in the South African Constitution and children's basic rights are stated under the United Nations Convention of the Rights of the Child. Difficulties in prosecuting perpetrators lies in the inconsistency in definitions on child abuse which also hinders the development of child protection initiatives. The legal implications of abuse in the disabled stem from the lack of a uniform medical consensus of diagnosis and appropriate behaviours and expectations of the children. Disabled children are often a heterogeneous group, despite having the same diagnostic label (Cederborg, 2006). Law courts often make decisions largely in ignorance of the capabilities, behaviour and limitations of vulnerable witnesses. Many children may be misunderstood when legal proceedings do not take into account their special needs and capacities and when they are expected to give accounts of the incident as if they are non-disabled. Investigations in the disabled group are

not carried out if details are missing, if they are conflicting or altered by the victim or if a perpetrator is not identified (Elvik, Berkowits, Nicholas, *et al,* 1990).

1.7 Studies on the Prevalence of Abuse in the Disabled

The obstacles to studying the prevalence of disabled-abused child population relate to a lack of clear definitions worldwide (Pierce and Bozalek, 2004). As there is a lack of uniformity in the definitions of "disability" and "maltreatment", it is difficult to collate information in a meaningful way. Neither definition is considered to be absolute but is rather viewed in a continuum that takes into consideration the social and cultural context of the child. An additional dimension in determining the prevalence of abuse in the disabled is to ascertain the temporal relationship between abuse and disability, as abuse could render a child disabled (Spencer, *et al,* 2005).

No reliable data exist in South Africa on the prevalence of the abuse of children with disabilities. South Africa, as a developing country, has unique socio-economic, political and health indicators, as well as a history of violence and human rights abuses. Independent local studies are therefore required in order to reflect the prevalence of abuse specific to South Africa. Although a great deal of the information that is drawn on in this research report relates to countries that have a different blend of social, economic and cultural issues to South Africa, it is necessary to rely on data gathered

abroad in order to grasp an understanding of the local situation (Townsend and Dawes, 2004). The studies conducted abroad do not constitute a comparison for the population reporting to the Teddy Bear Clinic (TBC), but they do provide a picture of how maltreatment of children presents itself in other populations with different demographic features.

The following studies have quantified the risk of abuse in the disabled compared with the non-disabled:

- The National Centre for Child Abuse and Neglect (NCCAN, 1993) found that, compared with non-disabled children, disabled children were 2,1 times more at risk of physical abuse, 1,8 times more at risk of sexual abuse and 1,6 times more at risk of neglect.
- In the United States, the prevalence of abuse is estimated to be 11% of the population, with disabled children 3,4 times more likely to be abused than non-disabled children (Sullivan and Knutson, 2000).
- The researchers Kendall-Tackett, Lyon, Taliaferro, *et al* (2005) have found that, in general, disabled children were twice as likely to be maltreated as children without disabilities.
- In a worldwide systematic review on the effect of disability on abuse conducted by Govindshenoy and Spencer (2006), the researchers found that disability was significantly associated with child abuse, but there were important differences in the type of disability studied, the category of abuse and the magnitude of the association.

- In a study by Jaudes and Mackey-Bilaver (2008), children in low-income areas under the age of six years with chronic behavioural and mental health conditions were 1, 9 times at greater risk of maltreatment than their peers without such conditions.

The prevalence of abuse in the disabled varies between 1,6 to 3,4 times that of the non-disabled. The ratio depends on the disability and the type of abuse, indicating that certain disabilities have particular vulnerabilities, as outlined hereunder:

1.7.1 Sensory Disorders

Some studies have found that sensory disorders predispose children to abuse, whilst others show a decrease in risk. Hard- of - hearing children have twice as much risk of neglect and emotional abuse than their healthy counterparts and they are four times more at risk of physical abuse (Kendall-Tackett, *et al,* 2005). In a study by Sullivan and Knutson (2000), it was found that children with sensory disorders were three times more likely to be maltreated. However Spencer, *et al* (2005) who accounted for confounding variables reported a 0,44-fold risk of being physically abused, indicating that children with sensory disorders are somehow protected from physical abuse, once socio-economic status and other variables are taken into consideration.

1.7.2 Children with Learning Disabilities

According to Cooper (2002), children with learning disabilities are encouraged to be compliant and to please others. When coupled with a wish to be accepted, their inability to identify risk and to have foresight makes them susceptible to exploitation and abuse. Children with learning disabilities had twice the risk of being physically, emotionally, sexually abused or neglected than their non-disabled peers (Sullivan and Knutson, 2000). Jaudes and Mackay-Bilaver (2008) who examined children only under the age of six years agreed with Sullivan and Knutson (2000). However, Spencer, *et al* (2005) found the risk of being sexually abused to be over *six* times the risk of their non-disabled counterparts. Therefore, it is possible that the risk of sexual abuse increases when certain variables are taken into account.

1.7.3 Children with Speech and Language Difficulties

Children with speech and language disabilities were found to have five times the risk of neglect and physical abuse and three times the risk of sexual abuse (Sullivan and Knutson, 2000). Spencer, *et al* (2005), who adjusted results for socio-economic status and birth weight found that the Odds Ratio was 3,43 for physical abuse; 1,27 for sexual abuse; 4,21 for emotional abuse and 3,79 for neglect.

1.7.4 Children with Orthopaedic Disabilities

Children with orthopaedic difficulties had twice the risk of being abused or neglected (Sullivan and Knutson, 2000). Spencer, *et al* (2005) found that the adjusted Odds Ratio for cerebral palsied children for physical abuse was 3,0 and for neglect, the Odds Ratio was slightly lower at 2,71.

1.7.5 Children with Behavioural (Conduct) Disorders

These children were consistently the most at risk of maltreatment in the majority of studies. According to Spencer, *et al* (2005) they were eleven times more likely to be *emotionally* abused, 8 times more likely to be neglected, 7 times more likely to be sexually abused and 4 times more likely to be physically abused. In Sullivan and Knutson's study in 2000, the Odds Ratios differed somewhat in that they found that children with behavioural disorders were 7 times more likely to be neglected, physically and emotionally abused and 5,5 times more likely to be sexually abused. However, the study showed that autistic children were only 1,23 more likely to be physically abused than their healthy peers (Spencer, *et al,* 2005). Clearly, the type of behavioural disorder affects the level of risk of maltreatment.

1.7.6 Multiple Disabilities

Children with more than one disability had a higher risk of being abused and the severity of the abuse was more acute than other children without

disabilities (Sullivan and Knutson, 2000). The results for abuse registration (Spencer, *et al,* 2005) differ slightly from those of Sullivan and Knutson (2000). This may be due to the different population groups and methods used to study the population groups. In addition, Spencer, *et al* (2005) used a retrospective approach using data that spanned over nineteen years; they mention that various definitions and prevalence (for example, in the case of autism) have changed over time. Jaudes and Mackey-Bilaver (2008), however, point out that the more severely disabled have a *lower* risk of maltreatment. They postulate that the families of these children may have more support, may be more resigned to the condition and that there may be less disparity between expectations and child performance. This is of interest in the South African context as children who have multiple disabilities may have less rather than more support.

1.8 Causality and Abuse

Spencer, *et al* (2005) have highlighted some of the methodological difficulties in linking child abuse with disability. Most studies correlating child abuse with disability have used cohort studies of either abused or disabled children and then extrapolated the values to whole populations. This method is open to serious bias, as a clear temporal relationship between disability and maltreatment have not been established. In addition, spurious relationships, such as socio-economic status, which is correlated with both a higher abuse prevalence and low birth weight, can cause confounding, the potential of which requires adjustment.

Further issues in the examination of data regarding abuse in the disabled arise because the impairments that a child may have, may render some acts as abusive or neglectful when they would not necessarily be regarded as such with a non-disabled child (Westcott and Jones, 1999).

1.9 The Teddy Bear Clinic

The data that were collected by the Teddy Bear Clinic (TBC) as part of the intake process were used in this study. The TBC began as a Child Abuse Clinic attached to the Paediatric Department of the Johannesburg Hospital in 1986. Initially, it operated with a handful of staff carrying out medico-legal examinations on sexually and physically abused children and provided expert reports and testimony in court (Higson-Smith, Lamprecht and Jacklin, 2004). In 1994, it became a non-governmental organisation which specialised in the protection and rehabilitation of children who had been victims of child abuse. As the number of children receiving assistance at the clinic grew, a broader range of services were offered. Today, the TBC is a medico-legal facility clinic for child abuse situated in Parktown and services mostly the Greater Johannesburg area through three other sites, namely the Johannesburg Court, Krugersdorp and Soweto.

The TBC is one of two specialised child abuse organisations, the other being Childline. Although public and private hospitals deal with acute cases of children who have been abused, they may refer the child to the TBC for a second opinion or for cases of chronic abuse. Other referral sources include

schools, psychologists, churches and other welfare organisations. The clinic aims to identify abuse in South Africa and aid the judicial process for the abused child. Additional services include therapeutic services for children and their parents; court preparation through their Kids Court Support Programme; a diversion programme for youth offenders and pre-and post-test HIV counselling (Higson-Smith, *et al*, 2004).

Children that are brought to the TBC undergo a series of investigations from interviews to medical examinations and the caregivers are interviewed to clarify facts and provide supplementary information.

1.9.1 The Intake Process at the TBC

There is a systematic intake process at the TBC. Upon admission to the clinic, a case file is opened for the child. A nurse obtains general medical details such as height, weight and urine samples. Thereafter, an intake counsellor (a social worker or volunteer) acquires a full incident account and interviews the person who brought the child to the clinic. A medical doctor examines the child for physical signs of abuse, such as bruises cuts, tears. A case conference is held with the doctor, nurse, intake counsellor and supervisor, whereupon a plan of action is decided upon and a referral is made. This process allows for the systematic retrieval of information. Once the referral has been made, the file is closed and placed in the archives.

1.9.2 The Stat Form

The Stat Form is a closed-response questionnaire that provides a summary of the case. Each staff member completes the relevant section of data on the Stat Form, whence, Section I is completed by the nurse, Section II by the social worker/volunteer and Section III by the medical doctor. The Stat Form was included in the administration process in 2000 in order to provide a summary of the data collated throughout the intake process to be used for research and monitoring purposes. (More detail on the validity and reliability of the Stat Form is provided in the Methodology Section).

1.10 Aim of the Study

The study examined data from the TBC over an eight-year period (from January 2000 to December 2007). The archives at the TBC were accessed in order to collect data pertaining to disabled children who had been abused.

The aims of the study were to:

- compare the prevalence of abuse (sexual, physical and neglect) between the disabled, multiple-disabled and non-disabled population;
- investigate how factors such as age, gender and population group influenced the prevalence of abuse in the disabled and non-disabled population;

- describe the medical interventions applied (swabs and blood tests) in each type of disability (physically, mentally and learning disabled);
- examine the type of abuse experienced by each disabled population;
- express the difference in prevalence in terms of Odds Ratios in order to quantify the risk of the disabled to being abused.

2 Methods and Materials

This research report is based on a retrospective descriptive study using data obtained from a questionnaire known as the Stat Form used at the TBC. The Stat Form is completed by different members of staff at various points in the intake process and is placed in the child's hospital file. It forms a summary of the case and the data collected contribute to the Child Abuse Statistical Data Bank. However, there is no electronic database in which this information is kept and the author was therefore responsible for inputting the data into a Microsoft Access Database (2003).

It is important to note that only data relevant to the aims of this study were collected and analysed. The relationship between other variables and child maltreatment (such as socio-economic status, perpetrator/s, etc) was not considered despite the fact that information regarding these factors were available for collection on the form. This is due to the fact that the study was one of many examining different variables relating to child abuse.

2.1 Sampling

No sampling techniques were used as a 100% population was examined in order to obtain the maximum accuracy of prevalence. Therefore, all the children that attended the clinic between the 1st January 2000 and the 31st

December 2007 were included in the study. Overall, 2480 cases of suspected abuse were captured.

2.2 The Measurement Tool

The Stat Form is a questionnaire that has been used since the year 2000 to collect quantitative information on children attending the TBC. Thus far, the information that has been collected by means of the Stat Form has not been collated in order to examine meaningfully the relationship between disability and maltreatment (or in fact, any other variables). Although it is recognised that the Stat Form is not a perfect tool for the complex task of measuring child maltreatment in the disabled, it is, presently the *only* data collection tool available that is consistent, quantitative and protects the identity of the children attending the TBC. It is hoped that with further study, the shortcomings of the Stat Form will be minimised so it will be adapted to reflect the current research.

2.2.1 Format of the Stat Form

As the intention was to create a summary of the cases attending the clinic, the questions on the form are closed-response questions and, in most cases, there is very limited opportunity to add qualitative information. Data on children under the age of 16 years (or up to the age of 18 years if the child was "mentally handicapped") are collected on the Stat Form.

The Stat Form consists of three main sections, completed by the three different people involved in the intake process at the TBC. Part One is completed by a Nurse who collects the personal information, such as: the gender, race and age of the child. Other information collected by the nurse is the date of birth of the child, the referral agent and if the child had attended a child abuse clinic in the previous 6 months.

Part Two is completed by a Social Worker or a Volunteer. Information such as family history (of mental retardation, depression, child abuse, alcoholism, family violence, drug abuse and poor supervision) is collected, as well as whether the child, *prior* to the reported incident, was mentally, physically or learning disabled, emotionally disturbed or had a previous history of sexual abuse. There are options on the Stat Form for the social worker/ volunteer to indicate that there is uncertainty regarding the disability status of the child with the responses "possibly" and "unsure". It is important to note that the decisions are made on clinical knowledge rather than specified guidelines and rely heavily on the reporting of the disability by the caregiver.

Information such as school placement and failure rates are collected as well as data regarding the experience of abuse in the parents. The Social Worker or Volunteer is also required to evaluate through the anamnesis whether or not the child presents a history congruent with child abuse, i.e. whether or not the child's behaviour is indicative of possible child abuse. Other

information collected by the social worker or volunteer includes whether or not a charge has been laid against the perpetrator.

Part Three is completed by a Doctor. This section includes the type of abuse reported (sexual, physical or neglect) which will determine the kind of examination that will be required. If the abuse is sexual, the doctor documents the type of sexual abuse that is reported, whether or not a discharge is present and if swabs and/ or blood tests are required. In order to enable the doctor to discern any complications of child abuse, there are categories for the completion of the results of these tests (such as a growth or systemic infection). The physical findings of the sexual abuse are documented according to the following categories: "non-specific", "conclusive", "suggestive", "no evidence" and "not examined".

If the abuse is physical, the doctor documents the physical signs according to the following categories: "unknown", "conclusive", "suggestive" and "no evidence". If the doctor feels that the child is emotionally disturbed, malnourished or is suffering from medical, social or general care neglect, the Stat Form will allow these opinions to be expressed. Once again, the information gained is based on the doctors' clinical knowledge.

Finally, the doctor indicates on the Form referral options for further investigation or treatment.

2.2.2 Limitations of the Stat Form

As the Stat Form is a questionnaire that has been created specifically for use at the TBC, there was no flexibility on the part of the author to modify the questionnaire according to a specific research question. Rather, the research was adapted according to the availability of data routinely collected.

A shortcoming of the Stat Form is that it relies on the accurate information being reported by the accompanying adult. In some cases, where the adult was not a close family member, important information relating to the child may not have been known.

A major limitation of the Stat Form is the lack of guidelines for the staff member completing the questionnaire. There are no definitions attached to the form or training to ensure that the administrators have the same understanding of the constructs examined. Unfortunately, the constructs regarding child maltreatment and disability are based on the clinical experience of the staff member and are not explicitly stated.

Consequently, many questions could be raised with regard to the integrity of the data collected with this questionnaire. Specifically, the data regarding disability status rely heavily on the caregiver's understanding of the question posed by the interviewer, their knowledge that a disability exists, their willingness to share that information, the interviewers'

understanding of what the caregiver has contributed and the accurate record of the information. As disability is a sensitive issue, the *manner* in which the information is gathered may also play a role in the acquisition of the relevant information. Furthermore, differences in the education and experience of the various administrators completing the same section of the Stat Form may lead to unreliable results. A clear discrepancy occurs in Part Two where a volunteer or a social worker fills in the Stat Form. These two administrators may have vastly different levels of expertise and experience but are expected to yield the same quality of information.

Issues relating to reliability and validity are also raised with regard to the clinical diagnosis of abuse and neglect. Although not a weakness of the questionnaire, *per se,* the lack of clear clinical guidelines for abuse and disability result in poorer validity. In addition, because the Stat Form was not modelled on international agency questionnaires studying the prevalence of abuse, there is a lack of inter-agency consistency with regard to categories. Reliability may have been compromised by the inaccurate collection and recording of the data. Human error, missing information and unclear marking on the Stat Form compromise the integrity of the data obtained.

2.2.3 Terminology

It is recognised that the terminology used in the Stat Form makes use of outdated categorisations. However, the author had no control over this. For

example, Dawes and Mushwana (2007) contend that a rationale should be provided for the use of racial categories such as "Black", "Asian", "Coloured" and "White" which use apartheid designations. Higson-Smith, *et al* (2004) point out that South Africa's history is characterised by large differentials in the services available to people of different skin colour. The rationale used in this study for the inclusion of the variable "population group" is to ensure that with the collection of accurate prevalence rates and services planning will be accessible to the entire population. Iezzoni (1997) remarks that administrative sources always contain routine demographic data, which include race and population group along with date of birth and gender.

It is recognised that the questionnaire should be sensitive to the changing terminologies and be adjusted accordingly.

2.3 Methods

The Stat Forms were removed from medical files by the staff at the TBC and the names of the children were blacked out with a marker. The author filed them into numerical order according to year, conforming to the system at the clinic (e.g. the 75th case seen in 2004 was demarcated as 75/2004). Eight years' worth of data was captured electronically from all the available Stat Forms completed between 1st January 2000 and 31st December 2007. A total of 2480 cases of children who reported to the TBC for suspected abuse were analysed. Twenty cases were excluded as either the dates of birth

were incorrectly recorded and the child had an age below zero, or the child was over the age of eighteen years. Intensive data - cleaning was necessary in order to perform the analysis. Conversion to Microsoft® Excel was later required so that the data could be used by the statistical programme (Statistical Analysis Software® version 10).

2.3.1 Categorising the Disabled Population

The "Disabled" group were categorised as such according to the input received on the Stat Form. The cases where a response was marked "yes" for "Learning Disabled", "Mentally Disabled" or "Physically Disabled" were included in the disabled population group. The non-disabled children were only classified as such if it was indicated on the form that there were no mental, physical or learning disabilities. Children who "possibly" had a disability or whose disability status was "unknown" did not form part of the non-disabled or disabled group, as they had the *potential* to be a part of either. There were 413 such cases in the sample. If an answer regarding disability status was left blank, the other information pertaining to the child was nevertheless captured and the blank space was captured with the variable "missing information". There were 171 cases which had no information relating to disability status. As these cases also had the potential to be either disabled or non-disabled, they were excluded from the statistical analysis. In total, there were 1656 cases which were examined.

In order to cast the net wide enough to include all the possible cases of disability, the author also used information regarding schooling to obtain information regarding disability status. For example, the information pertaining to the disability status of the child may have been missing, but the response regarding schooling may have indicated that the child had attended a school for the learning/mentally/ physically disabled. In such cases, these children were included in the respective disabled population group. With regard to the Learning Disabled, if a child had failed a grade at school three times or more, he/she was included in the learning disabled population. It is recognised that the child may have required placement in a special school, but that the resources might not have been available to do so, or that a barrier to learning had not yet been officially diagnosed.

The sum of the children who were categorised as learning, physically and mentally disabled constituted the total disabled population. Children who had more than one disability were excluded from the disabled population and formed the "multiple-disabled" group, which was analysed separately.

Abuse was analysed by the information obtained from the doctor's section of the Stat Form. If the response was "conclusive" or "suggestive" in the case of sexual and physical abuse, these categories were analysed as such and *subsequently* were collapsed to form the category "clinical evidence of abuse". If a positive response was obtained for any of the four categories relating to neglect, namely, malnutrition, medical, social and general

neglect, an analysis was conducted initially on these four categories which were later condensed for the secondary analysis.

A statistical analysis was also conducted on the medical interventions (blood tests and swabs) that were carried out on the groups. Statistical Analysis Software® Version 10 was used to analyse the data. The chi-square test was used and the p-value, which is a probability with a value ranging from zero to one, was set at the conventional level of 0,05. P-values found to be below this level are "statistically significant" and indicate that the differences observed between the two groups are unlikely to be due to co-prevalence (McKillup, 2005). In such cases, there is a justification for rejecting the null hypothesis (which is that disability status does not play a role in maltreatment) and the alternate hypothesis is accepted.

2.4 Ethical Issues

None of the children who attended the clinic could be identified by the author as the all the names had been erased from the forms before they were filed. Ethical clearance for the study had been obtained from the University of the Witwatersrand Ethics Board (Ethics Number: M4060250). Therefore, complete anonymity and confidentiality were ensured and the patients' personal autonomy protected.

3 Results

The disabled, non-disabled and multiple-disabled population attending the TBC were investigated with regard to age, population group and gender as well as for the prevalence of the three types of maltreatment under examination. The same analysis was done on each sub-population of the disabled, namely, the mentally, physically and learning-disabled. For these groups, a statistical analysis was also applied to medical interventions undertaken in order to investigate the abuse.

3.1 The Population

All the cases presented from 1 January 2000 to 31 December 2007 were captured electronically from the hospital records, totalling 2480 cases. In the instances where there was information missing, the case number and available information were nevertheless entered into the database, but the missing information was coded as such. Twenty cases were excluded either because the cases were above the age of eighteen years or their date of birth was incorrectly written resulting in a negative value, leaving a total of 2460 cases. With regard to disability status, in 413 cases disability status was not established and in 171 cases the information was not captured, with a total number of 1656 non-disabled cases for inclusion in the study. Table 1 overleaf provides a summary of the sub-categories of the population.

Disability status	Frequency	Percentage	Cumulative percentage
Unknown	413	16,65%	16,65%
Missing	171	6,89%	23,54%
Non-Disabled	1,656	66,77%	90,31%
One Disability	166	6,69%	97,00%
Multiple Disabilities	74	3%	100,00%
Total	2,480	100,00%	100,00%

Table 1: Percentage of non-Disabled, Disabled and multiple-Disabled children attending the TBC over the eight-year period.

Table 1 illustrates the relative numbers of children with and without disabilities. The vast majority of children attending the TBC are not disabled and the ratio of non-disabled to the total disabled is 12,65:1.

Children with more than one disability formed the "multiple-disabled" group, which consisted of 74 cases, 15 of which had all three disabilities. Table 2 overleaf indicates the composition of the disabled group.

Type of disability	Disability category	School category	Total	Percentage of disabled group
Mentally Disabled	72	13	85	25,83%
Physically Disabled	30	3	33	10,03%
Learning Disabled	170	41	211	64,13%
Total	272	57	329*	100,00%

Table 2: The Complement of the Sample "Disabled".

*329 (includes- 77 children with 2 disabilities and 15 children with 3 disabilities)

Table 2 demonstrates that the learning disabled form an overwhelming majority of disabled children attending the TBC. The children who are exclusively mentally or physically disabled contribute relatively few numbers to the sample.

3.2 Sexual Abuse

Table 3 overleaf indicates the relative values of disabled, non-disabled and multiple-disabled children who were sexually abused:

Clinical Evidence of Sexual abuse	Non-Disabled	Disabled	Multiple-Disabled
No	1129 68,18%	109 65,66%	40 54,05%
Yes	527 31,82%	57 34,34%	34 45,95%
Total	1656	166	74

Table 3: Sexual Abuse amongst the Disabled, non-Disabled and multiple-Disabled.

Pearson Chi-Square yielded a p-value of 0,035 indicating a significant result. Although the disabled and non-disabled are sexually abused to a statistically similar degree, the children with more than one disability are more vulnerable to sexual abuse.

Due to the small population of multiple-disabled children, this group was incorporated into the disabled group for the analysis of age, gender and population group when analysing sexual abuse, physical abuse and neglect variables. Evidence of sexual abuse was divided into its constituents, namely suggestive evidence and conclusive evidence for the purposes of analysis.

3.2.1 Age

3.2.1.1 Sexual Abuse in the Non-Disabled

Suggestive and conclusive sexual abuse in children without a disability were examined and yielded the following results:

Age Category	No evidence	Suggestive evidence	Conclusive evidence	Total
0-5 years	416 82,38%	47 9,31%	42 8,32%	505 100%
6-10 years	432 68,79%	107 17,04%	89 14,17%	628 100%
11-15 years	230 53,36%	96 22,27%	105 24,36%	431 100%
16-18 years	46 55,42	12 14,46%	25 30,12%	83 100%
Total	1124 68,25%	262 15,91%	261 15,85%	1647 100%

Table 4: Sexual Abuse in non-Disabled Children analysed according to Age.

Pearson's Chi-Square analysis yielded a significant result (p=0,000). For most of the age groups suggestive and conclusive abuse prevail in equal proportions. However, the 16-18 year age group experienced statistically significant more conclusive than suggestive sexual abuse. The table also illustrates an increase in the prevalence of abuse with age.

3.2.1.2 Sexual Abuse in the Disabled

Disabled children with and without evidence of abuse were categorised according to age, as shown in Table 5 below:

Age Category	No evidence	Suggestive evidence	Conclusive evidence	Total
0-5 years	14 82.83%	2 11,76%	1 5,88%	17 100%
6-10 years	48 67,61%	16 22,54%	7 9,86%	71 100%
11-15 years	60 55,05%	21 19,27%	28 25,69%	109 100%
16-18 years	26 61,9%	7 16,67%	9 18,83%	42 100%
Total	148 62,92%	46 19,25%	45 18,83%	239 100%

Table 5: Suggestive and Conclusive Evidence of Sexual Abuse in the Disabled Population.

In the disabled population, the group experiencing the greatest prevalence of sexual abuse is the 11-15 year age group (p=0,094), which also had a greater prevalence of conclusive compared with suggestive sexual abuse.

The degree to which age influences the prevalence and risk of sexual abuse is not straightforward. Although there was a steady increase in sexual abuse with age, there were differences in how this presented itself in the two populations. In the non-disabled population, 16-18 year olds had the greatest prevalence of evidence of sexual abuse whilst in the disabled the 11-15 year olds were most vulnerable. More disturbingly, the latter also had the highest prevalence of *confirmed* sexual abuse indicating that the perpetrators left conclusive rather than suggestive evidence. This implies that the aggressors were more forceful or were less concerned about being discovered, or that the abuse was only discovered when it became more invasive.

Presumably, the low prevalence of abuse in the very young disabled is due to their being institutionalised or having restricted access to wider society. Younger disabled children may also be protected by their parents or may have fewer capabilities (movement, speech) to engage with potential abusers.

3.2.2 Population Group

3.2.2.1 Sexual Abuse in the Non-Disabled

Table 6, below demonstrates how membership to a population group is related to suggestive and conclusive sexual abuse in the non-disabled:

Population group	No evidence	Suggestive evidence	Conclusive evidence	Total
White	550 80,53%	72 10,54%	61 8,93%	683 100%
Coloured	123 74,10%	20 12,05%	23 13,86%	166 100%
Asian	32 72,73%	6 13,64%	6 13,64%	44 100%
Black	394 54,42%	158 21,82%	172 23,76%	724 100%
Total	1099 67,97%	256 15,83%	172 16,20%	1617 100%

Table 6: Prevalence Rates of Sexual Abuse in the non-Disabled.

The Black population group experienced a significantly higher prevalence of both suggestive and conclusive sexual abuse when compared with other population groups (p=0,000). All the population groups experienced suggestive and conclusive abuse to a similar degree.

3.2.2.2 Sexual Abuse in the Disabled

Table 7 illustrates how population group and evidence of sexual abuse are related:

Population group	No evidence	Suggestive evidence	Conclusive evidence	Total
White	74 64,35%	23 20%	18 15,65%	115 100%
Coloured	14 53,85%	6 23,08%	6 23,08%	26 100%
Asian	3 60%	1 20%	1 20%	5 100%
Black	56 62,92%	13 14,61%	20 22,47	89 100%
Total	147 62,55%	43 18,30%	45 19,15%	235 100%

Table 7: The Prevalence of Sexual Abuse in the Disabled Population.

When sexual abuse and population group were analysed in the disabled, a non-significant result was found (p=0,807). This indicates that population group in the disabled population group is not related to the prevalence of sexual abuse.

The demographics of the population attending the clinic did not reflect the proportions of the general population of Gauteng. As Higson-Smith, *et al*

(2003) point out, the TBC is the only specialist service for survivors of child abuse which sees a substantial proportion of White children. Whites made use of the clinic the most, yet they had the lowest proportion of confirmed abuse cases, whilst Blacks had the highest proportion of confirmed sexual abuse cases and a 2,73 higher risk of sexual abuse than Whites. In the disabled population, there were relatively small numbers and no statistically significant difference in prevalence was found between the population groups. However, in the non-disabled population, the Black population group was over-represented as 45% had evidence of sexual abuse. The Coloured and Asian population group contributed much less to the total population (0,5% and 2,5%, respectively) and therefore, the relative percentages of abuse in these populations may be inflated.

3.2.3 Gender

3.2.3.1 Sexual abuse in the Non-disabled

Table 8 (overleaf) demonstrates how gender influences the prevalence of sexual abuse in non-disabled children:

Gender	No evidence	Suggestive evidence	Conclusive evidence	Total
Male	205 78,54%	40 15,33%	16 6,13%	261 100%
Female	910 65,99%	222 16,10%	247 17,91%	1 379 100%
Total	1115 67,99%	262 15,98%	263 16,04%	1640 100%

Table 8: The Prevalence of Sexual Abuse in non-Disabled children attending the TBC.

There is a greater prevalence of conclusive sexual abuse in females than in males (p=0,000); however, suggestive abuse was experienced to a similar degree in both sexes.

3.2.3.2 Sexual abuse in the Disabled

Table 9, overleaf indicates the prevalence of sexual abuse in males and females:

Gender	No evidence	Suggestive evidence	Conclusive evidence	Total
Male	61 75,31%	15 18,52%	5 6,17%	81 100%
Female	86 55,13%	30 19,23%	40 25,64%	156 100%
Total	147 62,03%	45 18,99%	45 18,99%	237 100%

Table 9: The prevalence of sexual abuse in disabled males and females.

A quarter of disabled females were found to have conclusive evidence of abuse compared with only 6,17% of males. This result is statistically significant (p=0,001) denoting the increased occurrence and therefore vulnerability of females.

3.3 Physical Abuse

Table 10 overleaf shows values relating to physical abuse in the non-disabled, disabled and multiple-disabled:

Physical abuse	Non-disabled	Disabled	Multiple-disabled
No	1555 93,90%	149 89,76%	71 95,95%
Yes	101 6,10%	17 10,24%	3 4,05%
Total	1656	166	74

Table 10: Physical Abuse in the non-Disabled, Disabled and multiple-Disabled children attending the TBC.

The Pearson Chi-Square yielded a value of 0,081 indicating a non-significant result. Therefore, all children regardless of disability status have statistically equal prevalence of physical abuse.

3.3.1 Age

3.3.1.1 Physical Abuse in the Non-Disabled

Table 11 illustrates that the prevalence of physical abuse is relatively low and that all age groups have a similar reports of abuse.

Age category	No evidence	Suggestive	Conclusive	Total
0-5 years	473 93,66%	24 4,75%	8 1,58%	505 100%
6-10 years	597 95,06%	21 3,34%	10 1,59%	628 100%
11-15 years	396 91,88%	18 4,18%	17 3,94%	431 100%
16-18 years	81 97,59%	0	2 2,41%	83 100%
Total	1547 93,93%	63 3,83%	37 2,25%	1647 100%

Table 11: The Prevalence of Physical Abuse in the non-Disabled Population attending the TBC.

The only significant finding was that non-disabled 0-5 year olds have a greater prevalence of suggestive rather than conclusive physical abuse (p=0,044). All age groups have a similar prevalence of both categories of abuse.

3.3.1.2 Physical Abuse in the Disabled

All age groups have a similar prevalence of suggestive and conclusive abuse in the disabled population, as shown by Table 12 overleaf:

Age category	No evidence	Suggestive evidence	Conclusive evidence	Total
0-5 years	17 100%	0	0	17 100%
6-10 years	64 90,14%	3 4,23%	4 5,63%	71 100%
11-15 years	97 88,99%	5 4,59%	7 6,42%	109 100%
16-18 years	41 97,62%	0	1 2,38%	239 100%

Table 12: The Prevalence of Physical Abuse in the Disabled Population attending the TBC.

The p-value for the above analysis was 0,631 indicating that there is no statistically significant relationship between the prevalence of physical abuse in the disabled and age.

3.3.2 Population Group

3.3.2.1 Physical Abuse and the Non-Disabled

Membership to a particular population group has an influence on prevalence of physical abuse in the non-disabled, as illustrated by Table 13 overleaf:

Population group	No evidence	Suggestive evidence	Conclusive evidence	Total
White	660 96,63%	19 2,78%	4 0,59%	683 100%
Coloured	151 90,96%	12 7,23%	3 1,81%	166 100%
Asian	41 93,18%	2 4,55%	1 2,27%	44 100%
Black	665 91,85%	31 4,28%	28 3,87%	724 100%
Total	1517 93,82%	64 3,96%	36 2,23%	1617 100%

Table 13: The Prevalence of Physical Abuse in the non-Disabled Population attending the TBC.

The Pearson's Chi-Square yielded a statistically significant result (p=0,000). The most remarkable finding was that the Coloured population group had a higher prevalence of suggestive rather than conclusive physical abuse. The White population group had the lowest prevalence of physical abuse.

3.3.2.2 Physical Abuse and the Disabled

The disabled population had a different profile to the non-disabled as shown in Table 14 overleaf:

Population group	No evidence	Suggestive evidence	Conclusive evidence	Total
White	111 96,52%	3 2,61%	1 0,87%	115 100%
Coloured	23 88,46%	2 7,69%	1 3,85%	26 100%
Asian	3 60%	2 40%	0 0%	5 100%
Black	78 87,64%	1 1,12%	10 11,24%	89 100%
Total	215 91,49%	8 3,40%	12 5,11%	235 100%

Table 14: Analysis of Prevalence of Physical Abuse in the Disabled, based on Population Group.

The Asian population had the highest prevalence of suggestive evidence of physical abuse, whilst the Black population group had the highest prevalence of conclusive physical abuse. As already mentioned, the population samples in the disabled and physically abused are very small and these findings may be skewed. Although the p-value yielded a statistically significant result (p=0,000), this result should be interpreted with caution. Due to the small number of Asian disabled children and the relatively high proportion of those with evidence suggestive of physical abuse, it appears as though the Asian population group has a 40%

prevalence of suggested physical abuse, when in fact the sample consists of only 5 children. The Black population had a relatively high value of 11,24% of disabled children being *conclusively* abused.

3.3.3 Gender

3.3.3.1 Physical Abuse and the Non-disabled

It is generally accepted that males are abused physically more than females (Naidoo, 2000) however, this study found that there was no significant difference for physical abuse between non-disabled male and females (p=0,095). Table 15 below provides the data for this finding:

Gender	No evidence	Suggestive evidence	Conclusive evidence	Total
Male	238 91,19%	13 4,98%	10 3,83%	261 100%
Female	1302 94,42%	50 3,63%	27 1,96%	1379 100%
Total	1540 93,90%	63 3,84%	37 2,26%	1640 100%

Table 15: The Prevalence of Suggestive and Conclusive Abuse in the non-Disabled

3.3.3.2 Physical Abuse and the Disabled

Unlike sexual abuse, gender does not have a bearing on the prevalence of physical abuse in the disabled (p=0,631) as indicated in Table 16, overleaf:

Gender	No evidence	Suggestive evidence	Conclusive evidence	Total
Male	73 90,12%	4 4,94%	4 4,94%	81 100%
Female	144 92,31%	4 2,56%	8 5,13%	156 100%
Total	217 91,56%	8 3,38%	12 5,06%	237 100%

Table 16: The Prevalence of Physical Abuse in the Disabled based on Gender.

3.4 Neglect

Statistically, the disabled had the highest prevalence of neglect (Pearson's Chi-Square=0,003) whilst the non-disabled and multiple-disabled children had lower values for the prevalence of neglect. Table 17 provides the analysis leading to this finding:

Neglect	Non-Disabled	Disabled	Multiple-disabled
No	1426 86,11%	188 78,33%	61 82,43%
Yes	230 13,89%	52 21,66%	13 17.57%
Total	1656	240	74

Table 17 Neglect in the non-Disabled, Disabled and Multiple-Disabled Children

3.4.1 Age

3.4.1.1 Neglect in the Non-Disabled

Table 18, below provides information relating to neglect and the age categories:

Age category	No neglect	Neglected	Total
0-5 years	463 91,98%	42 8,32%	505 100%
6-10 years	537 85,51%	91 14,49%	628 100%
11-15 years	347 80,51%	84 19,49%	431 100%
16-18 years	71 85,54%	12 14,46%	83 100%
TOTAL	1418 86,1%	229 13,90%	1647 100%

Table 18: The Prevalence of Neglect (based on age category) in the non-Disabled

The Pearson's Chi-Square yielded a statistically significant result (p=0,000). Children who were between the ages of 11 and 15 years had the highest prevalence of neglect compared with other ages. The youngest age group had the lowest prevalence of neglect. This is an unusual finding as research generally has found that young children are the most vulnerable to neglect (Dawes and Ward, 2008)

3.4.1.2 Neglect in the Disabled

Age did not have a bearing on the prevalence of neglect in the disabled children attending the clinic (p=0,543) but values were higher than those found in the non-disabled (see Table 17).

Age category	No neglect	Neglected	Total
0-5 years	14 82,35%	3 17,65%	17 100%
6-10 years	59 83,10%	12 16,9%	71 100%
11-15 years	81 74,31%	28 25,69%	109 100%
16-18 years	33 78,575	9 21,43%	42 100%
TOTAL	187 78,24%	52 21,76%	239 100%

Table 19: The Prevalence of Neglect, based on Age in the Disabled.

3.4.2 Population Group

3.4.2.1 Neglect and the Non-Disabled

Table 20 overleaf shows data gathered on neglect of non-disabled children based on population group:

Population group	Not Neglected	Neglected	Total
White	596 87,26%	87 12,74%	683 100%
Coloured	142 85,54%	24 14,46%	166 100%
Asian	40 90,90%	4 9,10%	44 100%
Black	627 86,67%	97 17,4%	724 100%
TOTAL	1405 86,89%	212 13,11%	1617 100%

Table 20: The Prevalence of Neglect in the non-Disabled Population.

Neglect was experienced to a similar degree in all the population groups (p=0,490) in the non-disabled children attending the TBC.

3.4.2.2 Neglect and the Disabled

Table 21 overleaf illustrates that the disabled group had a different experience of neglect, based on population group:

Population group	No	Yes	Total
White	121 81.76	27 18,24%	148 100%
Coloured	19 67,86%	9 32,14%	28 100%
Asian	5 100%	0	5 100%
Black	78 71,56%	31 28,44%	109 100%
TOTAL	223 76,90%	67 23,10%	290 100%

Table 21: The Prevalence of Neglect in the Disabled analysed according to Population Group.

The Black Population Group had the highest prevalence of neglect in the non-disabled group whilst the Coloured Population Group had the highest prevalence in the disabled group. The Asian population group had the lowest prevalence of neglect in both disabled and non-disabled populations. The analysis, however revealed that membership of a particular population group did not have a bearing on the prevalence of neglect in the disabled population (p=0,092).

3.4.3 Gender

3.4.3.1 Neglect and the Non-Disabled

Males and females in the non-disabled population group were neglected to a similar degree (p=0,169) (See Table 22 below).

Gender	No neglect	Neglect	Total
Female	1236 89,63%	143 10,36%	1379 100%
Male	230 88,12%	31 11,88%	261 100%
Total	1466 89,44%	174 10,61%	1639 100%

Table 22: The Prevalence of Neglect analysed according to Gender in the non-Disabled Population.

3.4.3.2 Neglect and the Disabled

The prevalence of neglect for females was statistically similar to that of disabled males (p=0,401), but the values were over three times those of the non-disabled (See Table 23, overleaf).

Gender	No neglect	Neglect	Total
Male	51 66,23%	26 33,77%	77 100%
Female	102 70,34%	43 29,66%	145 100%
Total	153 63,96%	69 36,04%	222 100%

Table 23: The Prevalence of Neglect in the Disabled Population analysed according to Gender.

3.5 Odds Ratio

Whilst prevalence is a very useful indicator of the overall percentage of children experiencing abuse in a population, it does little to translate percentages into *risk*. The Odds Ratio is used to assess the *risk* of a particular effect (in this case, maltreatment) if a certain factor is present (such as disability). It is a *relative measure* indicating how much more likely it is for someone exposed to a risk factor to develop the effect, compared with someone who is not exposed to it. The Odds Ratio takes a value between zero and infinity; if the value is 1,00 there is no association between the factor and the effect, whilst values below 1,00 show protective tendencies. Any value above 1,00 indicates an increase in risk, but the p-value will indicate if such an increase is statistically significant.

3.5.1 Risks of Sexual Abuse

Table 24 below shows the relative risks with the corresponding p-value (at a 95% confidence level). Variables that did not yield a statistically significant result were omitted.

Variable	Odds Ratio	Comparison group	p-value
Multiple disabled	1.69	Non-disabled	0,045
Female	1.8	Male	0,000
Black Population Group	2,73	White Population Group	0,000
0-5 year olds	2,01	16-18 year olds	0,000
6-10 year olds	3.91	16-18 year olds	0,000
11-15 year olds	3,53	16-18 year olds	0,000

Table 24: Significant Sexual Abuse Risks

The data in Table 24 indicate that the multiple-disabled children have significantly more risk than the non-disabled of sexual abuse as do females Children in the oldest age category have the least risk compared with children in the younger age categories and the Black Population Group has a 2,73 higher risk of sexual abuse.

3.5.2 Risks of Physical Abuse

Variable	Odds Ratio	Comparison group	p-value
Female	0.55	Males	0,02
Coloured Population Group	2,68	White Population Group	0,002
Asian Population Group	3,26	White Population Group	0,023
Black Population Group	2,85	White Population Group	0,000

Table 25: Risks associated with Physical Abuse.

All three categories of disability were at equal risk of experiencing physical abuse although other studies have indicated that *institutionalised* disabled children are at highest risk for physical abuse (Gallagher, 2000). The low values may be due to the fact that the TBC is mainly a clinic for sexual abuse.

Although females had a higher risk of sexual abuse, they had a 45% lower risk of physical abuse than males. In the non-disabled, females had lower

prevalence of physical abuse, but in the disabled, they experienced higher prevalence rates of conclusive physical abuse, although this value did not reach statistical significance.

All the other population groups were at higher risk than Whites for physical abuse, with the Asian Population Group having the highest risk, followed by the Black and Coloured Population Groups.

3.5.3 Risks for Neglect

Table 26 (below) describes the risk associated with neglect:

Variable	Odds Ratio	Comparison group	p-value
One Disability	1,53	Non-disabled	0,039
Female	0,72	Males	0,032
Blacks	1.51	Whites	0,005
0-5 year olds	1,60	16-18 year olds	0,014
6-10 year olds	2,35	16-18 year olds	0,000

Table 26: The Risks of Neglect

Interestingly, the younger age groups had the greatest risk of neglect. Children who are under the age of five and children between the ages of 6 and 10 have 1,6 and 2,35 times the risk of neglect, respectively, when

compared with 16-18 year olds. The risk of neglect is experienced highest in the Black Population group, who have a 51% higher risk than Whites. Females were less vulnerable to neglect as they had a 28% lower risk than males. Children with one disability experienced a 53% greater risk of neglect.

3.6 Categories of Disability

3.6.1 Mentally Disabled

Details of confirmed maltreatment in the mentally disabled are to be found in the Table below. A large proportion (44,71%) of the mentally disabled children indicated evidence of sexual abuse - 24,71% were conclusively abused and 20% were suggestively abused. It is possible that these patients had difficulty in giving details regarding the incident and therefore medical analyses are applied in order to obtain an objective measure (such as evidence of a sexually transmitted disease (STD), or pregnancy). The medical practitioners at the TBC appear to be well aware of this trend as, in the sub-category of children with conclusive sexual abuse, 58,33% had swabs done whilst 61,11% had blood tests done. There were 2 confirmed cases of physical abuse against children who had a mental disability and 2 cases suggestive of physical abuse. Neglect was experienced to a greater degree, most prevalently social neglect. Table 27 overleaf indicates the prevalence of the various types of maltreatment in the mentally disabled population:

Maltreatment		
Sexual	Suggestive	17 20%
	Conclusive	11 24,71%
Physical	Suggestive	2 2,35%
	Conclusive	2 2,35%
Neglect	Malnutrition	4 4,70%
	Medical Neglect	4 4,70%
	Social Neglect	7 8,23%
	General Care Neglect	4 4,7%

Table 27: The Maltreatment experienced by the Mentally Disabled

The only statistically significant result is for sexual abuse (p=0,02) indicating that mentally disabled children experience a higher prevalence of being sexually abused when compared to their non-disabled counterparts.

3.6.2 Physically Disabled

Table 28 below demonstrates the findings with regard to the physically disabled.

Maltreatment		
Sexual abuse	Suggestive	9 27,27%
	Conclusive	9 27,27%
Physical abuse	Suggestive	1 3,03%
	Conclusive	1 3,03%
Neglect	Malnutrition	2 6,06%
	Medical Neglect	0
	Social Neglect	2 6,06%
	General Care Neglect	0

Table 28: The Maltreatment of Physically Disabled Children

The physically disabled fared particularly poorly with regard to sexual abuse (p=0,006). However, the prevalence of physical abuse and neglect were not significantly raised above the values found for the non-disabled.

3.6.3 Learning Disabled

Over a third of the learning disabled portrayed evidence of having been sexually abused. Those with suggestions of abuse (19,91%) outnumbered those with conclusive evidence of abuse (17,54%).

Maltreatment		
Sexual	Suggestive	42 19,91%
	Conclusive	37 17,54%
Physical	Suggestive	6 2,84%
	Conclusive	12 5,69%
Neglect	Malnutrition	15 7,10%
	Medical Neglect	12 5,68%
	Social Neglect	35 16,58%
	General Care Neglect	22 10,42%

Table 29: Maltreatment experienced by Learning Disabled Children.

The learning disabled values for neglect were the only ones that reached statistical significance (p=0,003).

3.6.4 Multiple Disabilities

The prevalence of maltreatment of children with more than one disability was undertaken and the results are presented in Table 30, below:

Maltreatment		
Sexual	Suggestive	19 24,67%
	Conclusive	17 22,07%
Physical	Suggestive	2 1,3%
	Conclusive	0
Neglect	Malnutrition	4 5,19%
	Medical Neglect	4 5,19%
	Social Neglect	11 14,28%
	General Care Neglect	5 6,5%

Table 30: Maltreatment experienced by the Multiple -Disabled.

Children with more than one disability experience significantly higher rates of sexual abuse than physical abuse (p=0,011). The prevalence of social

neglect is highest although overall, they were the group with the lowest prevalence on neglect.

3.6.4.1 Comment on the Multiple Disabled

Investigating the 77 children who had more than one disability was an afterthought in the study. Yet, it revealed an interesting trend in how the weakest of the weak are treated. Those children with more than one disability are not at a risk of neglect, however, they are at a significantly higher risk for sexual abuse. This raises the question: "Who is abusing them?"

In this study, there was a lower prevalence of neglect and physical abuse being reported in the multiple disabled group, but a higher prevalence of sexual abuse. Children who are multiple-disabled may have to be institutionalised, indicating that whilst their basic needs are being met, their potential for exposure to *sexual* abuse is higher. Since these children may require assistance with hygiene and other sensitive issues, it is possible that this allows an opportunity for perpetrators to abuse them. In addition, they may be severely cognitively impaired, in which case the abuse is unlikely to be reported by the child and exposure is incidental.

4 Discussion

4.1 Disability in Johannesburg

The majority of children who reported to the clinic were not disabled. Only 9,69% had a mental, physical or learning disability. Studies of rural and peri-urban areas in South Africa indicate that the prevalence of disability is lower than that found in the urban area in which the clinic is located (Couper, 2002; Saloojee, *et al,* 2006). This is an unusual finding since children living in urban areas in South Africa are less likely to be disabled than those living in rural areas (Thomas, 2007).

Couper (2002), who examined the ratio of disabled to non-disabled children in a *rural* population found that the prevalence of disability was 6%, while Saloojee, *et al* (2006) found that the prevalence in a *peri-urban* area was between 5,2% and 6,4% in children under the age of nine years. The Child Health Policy Institute (2001) using data from small geographical areas found the prevalence to be between 3,3% and 6,4% in South Africa. As little is known about the prevalence of disability in the Greater Johannesburg area, it is not clear if there is truly a greater prevalence of disability or if there is a greater index of suspicion of abuse in the disabled. However, what is clear is that the population attending the clinic has a higher percentage of disabled children than what one would expect.

4.2 The Prevalence of Maltreatment

The overall prevalence of evidence of maltreatment in the TBC population was 53,81%. Clinical evidence of sexual abuse was observed in 32,55%, physical abuse in 6,36% and neglect in 14,9% of the study population. The disabled constituted 19,38% of the abused population, but they formed only 9,69% of the total population. A study by Higson-Smith, *et al* (2003) at the TBC found lower values for sexual abuse (34,4%) and physical abuse (4,1%). Differences in methodology, sampling and duration may account for the discrepancy as their study used a 10% random sample over 18 months and excluded the *suggestive abuse* category.

Examining the prevalence of maltreatment in South Africa is problematic as values differ according to the study technique used, the populations studied and the definitions of abuse. Prevalence rates vary considerably in retrospective studies of abuse, from 28,9% to 34,8% in Natal University students (Collings,1991) to 54,2% in North Province secondary school children (Madu and Pelzer, 2000) and between 60% and 72% in secondary school children in the Western Cape (Jewkes, Vundule, Maforah, *et al*, 2001). As there is about a 10-fold shortfall between reports to child protection agencies and occurrence of maltreatment based on retrospective self-report measures (Gilbert, Widom, Browne, *et al,* 2009) the above-mentioned prevalence of 53,81% appears to be high.

4.3 Risk Factors of Sexual Abuse

The degree to which age, gender and ethnicity influence the prevalence and risk of sexual abuse is not straightforward. The general trend found was that the older the child, the higher the prevalence and risk of sexual abuse. Higson-Smith, *et al* (2003) corroborated this finding as their study using TBC data found that those children who had vaginal or anal penetration tended to be older than children who had not.

Non-disabled 16-18 year olds had the greatest prevalence of evidence of sexual abuse whilst disabled 11-15 year olds were most vulnerable. The latter also had the highest prevalence of *confirmed* sexual abuse. This indicates that disabled adolescents are being abused more severely and at a younger age than their able-bodied counterparts. In the disabled group, there is a linear increase in the prevalence of sexual abuse until the age of 16 years. After this age, there is a considerable decrease in attendance at the clinic and a consequent decline in the diagnosis of confirmed sexual abuse. Since the legal age of sexual consent is sixteen years of age, the reporting of non-consensual sexual intercourse is potentially more difficult, since consensual sexual intercourse may have already occurred. It highlights the question of sexuality and how consent is granted in the disabled, *sexually-active* population. Some women with disabilities are often mistakenly regarded as asexual and therefore "clean" (Groce, 2004) and have been abused based on the belief that the assailant would be 'cured' by having sex with a virgin (Kvam and Braathen, 2008).

King, Flischer, Noubary, *et al* (2004) also found that adolescents between the ages of 15 and 17 years had the highest prevalence of rape in the Western Cape. The high level of coercive sex among adolescents has far-reaching implications as far as the HIV/AIDS epidemic is concerned, as sexual assault increases the risk of HIV-transmission and is associated with a subsequent high risk of sexual behaviour (Jinich, Paul, Acree, *et al*, 1998).

Another study supporting the vulnerability of adolescents liable to sexual abuse examined dockets in Gauteng. Vetten, Jewkes, Fuller, *et al* (2008) found that in 2003, 40% of victims who reported rape to the police were under the age of 18 years, 15% were under the age of 12 years and 2,8% were under the age of 3 years. However, Haffajee's study in 1991, found that in the Asian population in Durban, 54% of the sexually abused were under the age of 8 years and 27% of them were under the age of 5 years. In a similar vein, children between the ages of 3 and 4 and above the age of 10 years reporting to the Red Cross Hospital in the Western Cape had the highest risk (Van As, *et al,* 2001). Clearly risk and prevalence differ according to the geographical location in which the study is being conducted, as the demographics of each province vary. For example, a study conducted in the Western Cape by King, Flischer, Noubary, *et al* (2004) found that the Coloured youth had the highest prevalence of rape (6,5%) whilst Black adolescents had the highest prevalence of attempted rape (12%). A parallel result was noted by Seedat, *et al* (2009) who found that South African Black women have the highest risk of rape when compared to

other populations. This study found that in the non-disabled, ethnicity did not affect risk of abuse, but that disabled Black children were overrepresented, as 45% of them had some form of evidence of sexual abuse. Higson-Smith, *et al* (2003) using data from the TBC found that Black *females* were most vulnerable to sexual abuse as they were twice as likely to have been penetrated as White females. This study found that being female increased the risk of sexual abuse by 80%. Although females were the majority (60%) of children included in the study, the study by Higson-Smith, *et al* (2003) found that a higher majority (85%) of patients were female. This may be due to stricter exclusion criteria for analysis. However, both studies observed that females had a statistically significant higher rate of confirmed sexual abuse. Higson-Smith, *et al* (2003) found that males were significantly more likely to have been penetrated than females but that those other sexual crimes were more common in females. This finding is unusual as the study by King, *et al* (2004) determined adolescent females 3,9 times more likely to be victims of rape compared with boys, whilst Haffejee (1991) found the ratio of females to males to be 11:1 for sexual abuse. A hospital-based study found that 87% of children under the age of 12 attending the trauma unit were female (Van As, *et al,* 2001).

The lower prevalence of confirmed sexual abuse for males may also be due to the fact that anal trauma heals quickly and completely and the only residual may be a non-specific skin tag (Muram, *et al,* 2003). In females, however, vaginal penetration presents with transection of the hymen that

extends to the base of the hymen (Muram, *et al,* 2003). It therefore may be more difficult to conclusively diagnose sexual abuse in males than in females, although both sexes have non-specific findings in non-acute physical examinations.

In the non-disabled population, females and males were abused sexually to a similar degree, but *disabled* females experienced a much higher prevalence of *conclusive* compared with suggestive evidence of abuse. This indicates that being female and disabled loaded the risk of conclusive sexual abuse. Sobsey, Randall and Parrila (1997) found that females had a higher incidence of sexual abuse regardless of their disability status, but that disabled females experienced sexual abuse to a greater degree than disabled males.

Although the disabled children had a higher prevalence of abuse than the non-disabled, it was children with multiple disabilities that were found to be at the highest risk of sexual abuse. They had a 69% increased risk of sexual abuse compared with the non-disabled. It is possible that maltreatment in multiple-disabled children is only discovered when more invasive forms of abuse have occurred as disclosure may not be possible. The finding is surprising as one would expect neglect to be more of a concern due to the increased care demands of these children (Ammerman, van Hasselt and Hersen, 1989). It is disconcerting that the children who are the most reliant on adults for their care and least able to report maltreatment, are taken advantage of the most in the form of sexual abuse.

4.4 Risk Factors of Physical Abuse

As the TBC is a centre for sexually abused children, the prevalence of physical abuse was very low, only 120 cases (7,2%) showing any evidence of physical abuse. Pierce and Bozalek (2004) found that sexual abuse evoked much stronger feelings of anger and was ranked as the most serious form of abuse, whilst physical abuse was ranked eleventh. This may account for the difference in reporting rates for the two types of abuse.

Overall, age did not play a significant role in placing children of different ages at risk of physical abuse. However, in terms of prevalence, disabled children between the ages of 11 and 16 years had a relatively high prevalence of physical abuse, whilst their 0-5 year old counterparts had the lowest. Interestingly, the non-disabled 0-5 year olds had the *highest* prevalence of physical abuse compared with other age-groups. This is in keeping with Naidoo's (2000) findings from a study conducted in the Western Cape, where 56% of the population with evidence of physical abuse was between the ages of 0-4 years, 36% of which were under the age of 2 years. Crime statistics for the year 2000 showed that there were 654 homicides of children under the age of 5 years representing 0,6% of all child deaths for that year (Seedat, *et al,* 2009). The national rate for homicide for boys was 14 per 100 000 and 11,7 per 100 000 for girls (Seedat, *et al,* 2009). However, Matzopulos and Bowman (2006) have pointed out a different national trend with regard to homicides: in the case of children in the 0-4 year old age group both genders have similar rates, whilst in children 15

years and older fatal violence accounts for four times as many deaths in males than in females. As homicide is the most extreme form of physical abuse, it is not surprising that the study found different trends by taking into account less severe forms of abuse.

It is generally accepted that females have a lower risk of physical abuse than males (Naidoo, 2000). This study reflected this trend, with females having 45% less risk of physical abuse than males. However, the trend differed for disabled and non-disabled children: in the non-disabled, females had lower prevalence of physical abuse, whereas in the disabled, females had a similar value of prevalence to males indicating that once again disabled females bear a greater vulnerability to abuse.

Children who are disabled had the highest prevalence (10,24%) of physical abuse compared with those who had multiple disabilities (4,05%) and the non-disabled (6,24%). Although prevalence did not yield a statistically significant result, risk analysis did. Disabled children's risk was 77% higher for physical abuse than non-disabled children, but more than 105% higher than the multiple-disabled. Ammerman, van Hasselt, Hersen (1989) provide an explanation for this finding by suggesting that severely disabled children do not elicit extreme anger responses from parents, which may serve to protect them from abuse. Less severely impaired children may be difficult to care for but may not elicit the same degree of sympathy, thus putting them at higher risk (Ammerman, van Hasselt, Hersen, 1989).

4.5 Risk Factors of Neglect

Studies relating specifically to neglect are few and far between. Neglect is often categorised with child abuse under the umbrella term 'maltreatment'. Despite the fact that neglect is a widespread problem, it has been poorly researched with regard to prevalence and type. In South Africa, the definitions of neglect are further clouded by issues of poverty and unemployment where parents may not have the capacity to address the child's needs (Dawes and Ward, 2008). Neglect may also be under-diagnosed due to nebulous constructs such as "basic" care which create challenging clinical decisions.

Children with one disability experienced significantly greater (53%) risk of neglect, compared with the non-disabled and the multiple-disabled, who had similar levels of risk. Govindshenoy and Spencer (2006) who conducted a systematic review on the relationship between disability and child maltreatment found the risk to be generally higher in the disabled but dependent on the type of disability. Neglect ranged highest for those who had moderate/severe conduct disorder and lowest for anxious/withdrawn children and those with cerebral palsy. However, the study by Spencer, *et al* (2005) found that cerebral palsy, conduct disorders, speech and language disorders and moderate/severe learning difficulties were all significantly associated with neglect. Clearly, the "disabled" are not a homogeneous group and the tendency to neglect them depends on more than just their type of disability.

Presumably, the multiple-disabled evoke feelings of sympathy despite their increased need for care or they may be cared for in institutions where their basic needs are met. However, a study by Ammerman, van Hassalt, Hersen, *et al* (1989) pointed out that institutionalised care did not preclude the possibility of neglect of multiple-disabled children in a hospital setting. Furthermore, although institutions may offer care for basic needs, reports of other forms of maltreatment, such as sexual abuse, have been reported in these settings (Gallagher, 2000; Bross, 2001).

Younger children generally had lower levels of neglect than older children, regardless of their disability status. However, the rate of neglect in the disabled was much higher (23,1%) than the non-disabled group (13,11%) in every age category. Children in the 15-17 year old category experienced the highest levels of neglect in the study by Groce (1990) but Dawes and Ward (2008) found that younger children were the most vulnerable. Prevalence rates were statistically similar in males and females in the disabled and non-disabled populations; however, risk was 28% lower in females. A conflicting result was found by Groce (1990) in which females were over-represented in cases of neglect.

As definitions of neglect are culturally-bound and likely to differ from study to study, the results found in this research are by no means conclusive.

4.6 Medical Interventions

The results reported on medical interventions such as blood tests and swab cultures that were used to determine objectively the presence of a sexually-transmitted disease (STD) such as syphilis, HIV, gonorrhoea or pregnancy, imply that sexual abuse had taken place. The physically disabled were the population with the highest proportion having bloods taken (66,67%), followed by the learning disabled (23%) and the mentally disabled (19,5%). Swabs were taken in 22% in the case of the physically disabled, 16,1% in the learning disabled and 16,9% in the mentally disabled.

It is unfortunate that the results of these medical tests have not been noted in the TBC files in order to ascertain the prevalence of STDs and pregnancy in this population. It would have formed an interesting comparison to a study conducted in Cape Town that investigated the prevalence of STDs in children. Argent, Lachman, Hanslo, *et al* (1995) found that *Neisseria gonorrheoae* was the most common sexual pathogen, followed by *Gardnerella vaginalis*, *Trichonomas vaginalis, Treponema pallidum* and *Chlamydia trachomatis*. They also found that some children had multiple infections and that the discovery of an STD "was the stimulus to a more detailed investigation of possible child sexual abuse" (p. 1308). In a study by Haffejee (1991), *Neisseria gonorrheoae* was once again found to be the most common infectious agent, followed by *Treponema pallidum*.

Although, in the abovementioned studies disability status was not commented on, they do highlight the fact that a positive result on a blood test or swab allows a greater determination in the pursuit of a case of child sexual abuse (Argent, *et al,* 1995). The fact that disabled children have more blood tests and swabs done than non-disabled children is not surprising given that these children may not be able to describe a clear abuse history and because the index of suspicion is higher. However, it should also be borne in mind that these diseases may be transmitted in a non-sexual way and ideally neo-natal information should also be available.

4.7 Maltreatment of the Disabled

All the disabled sub-groups had a statistically higher prevalence of conclusive sexual abuse and neglect. Physical abuse was not affected by disability status in this population. These findings may be explained by the fact that the TBC is essentially a clinic for sexually abused children where the observation of neglect is made by a doctor and is seldom the main reason for admission to the clinic. Doctors requested more blood tests and swabs in the disabled groups.

4.7.1 Mental Disability

In this study, the mentally disabled were found to have an increased prevalence of conclusive sexual abuse, physical abuse and neglect compared with the non-disabled. Spencer, *et al* (2005) assessed the risk of disabled

children in abuse cases and accounted for confounding socio-economic and birth conditions. They found that mentally disabled children were six times more likely to be sexually abused. This study found the Odds Ratio value to be much lower at 1,54.

Overall, there was a higher prevalence of objective medical intervention in the diagnosis of sexual abuse in mentally disabled children. Doctors requested more blood tests and swabs in this population than in the non-disabled group. As many of the results of the tests were omitted, it was not possible to determine whether the mentally disabled actually suffered from sexually transmitted diseases to a greater extent than the non-disabled. However, 7,8% of those with sexually transmitted diseases were mentally disabled despite the cohort contributing only 1,5% to the total population. The mentally disabled were also the disabled group with the highest prevalence of malnutrition.

4.7.2 Physical Disability

This study found that the physically disabled had a higher prevalence of confirmed sexual abuse, physical abuse and neglect when compared with the non-disabled. Spencer, *et al* (2005) found that the physically disabled were three to four times more at risk of *physical* abuse. Govindshenoy and Spencer (2006) also found that children with a physical disability, such cerebral palsy, were associated with an increased risk of physical abuse and

neglect. The author found that the only increase in *risk* was in the case of sexual abuse (Odds Ratio: 1,37; p-value: 0,0001).

Physically disabled children also had the greatest prevalence of medical intervention in terms of swabs and blood tests performed. The highest prevalence of neglect was for "social neglect" which may be felt acutely by these children who may be painfully aware of their inadequacies yet equally aware of the lives they could be leading if they were not disabled.

4.7.3 Learning Disabled

The learning disabled were the only disabled group that had a higher prevalence of suggestive abuse compared with conclusive abuse and these values were statistically higher than those for the non-disabled. The learning disabled had the highest prevalence of social neglect.

Spencer, *et al* (2005) and Govindshoy and Spencer (2006) found that children with learning problems were five times more likely to suffer some sort of maltreatment. The former study by Spencer, *et al* (2005) calculated that the risk of physical abuse was three to four times higher than other abuses, whilst the latter study found that they were especially vulnerable to sexual abuse (a twofold higher risk). It is unsure why this study differed from other research on the learning disabled as they were found to be the group that had the greatest risk of neglect, but not of physical or sexual maltreatment.

4.7.4 The Multiple - Disabled

Investigating the 77 children who had more than one disability was an afterthought in the study. Yet, it revealed an interesting trend in how the weakest of the weak are treated. Those children with more than one disability are not at a risk of neglect or physical abuse; however, they are at a significantly higher risk of sexual abuse. This raises the question: "Who is abusing them?" Further studies in the relationship between perpetrators and disabled children are required.

4.8 The Strengths and Limitations of the Study

The issue of causality had haunted many a child abuse study. In this study, a retrospective analysis of eight years' worth of data, caregivers reported if the child was disabled *before* the alleged abuse. This allowed directionality in the causal equation.

Original responses on the Stat Form were converted to an electronic database of all the cases that had been seen at the TBC in the eight-year period. Extensive data cleaning was done, missing data were accounted for, and in many cases, and archives were accessed in order to make the data as complete as possible. The study draws tentative conclusions not only on the population as a whole but also on subcategories such as disability.

4.8.1 Limitations of the Study

4.8.1.1 Data Integrity

This study is not without its flaws, as it relied on documents which were completed over eight years ago. As a standardised questionnaire that is completed by three people, it is subject to the all the imperfections of such a questionnaire. The questionnaire itself may need to be revised in order to keep up-to-date with current medical trends, diagnoses and research terminologies.

A potential difficulty with accuracy lies in the issue of human error; for example, checking the incorrect box, making an ambiguous mark in a box or not checking a box at all with important information. There is likewise the issue of updating records once blood and swab results have been confirmed, which in the case of the Stat Form has been omitted in 99% of the cases. Staff shortages, lost files and the inter-rater variability all affected the quality of the data. The most obvious variation in inter-rater qualifications is in Part Two of the Stat Form, where the form may be filled in by a qualified social worker or a volunteer where there is no indication of which one was responsible for the case. Volunteers may not be as permanent as employees and there could be considerable variation in the education, motivation and experience of these two administrators.

There is no system to ensure the integrity of the data. It is suggested that data be regularly captured not only so that analysis would be readily

available but also as a tracking system for information that has been omitted.

Furthermore, there is no incentive for the staff to fill in the Stat Form correctly. It is suggested that more research be encouraged, not only to demonstrate the value of the data collected but also to discern shortcomings sooner so that they can be rectified.

4.8.1.2 Categories of the Stat Form

The study could have made a far greater contribution to the body of existing literature on child abuse in South Africa if the same categories of disability and abuse were used nationally. For example, the category "physically disabled" includes children who are blind, deaf and cerebral palsied, who are undoubtedly a heterogeneous group. Other studies have used the categories of "sensory disabled", "motor-impaired", "behavioural disorders", of which there may be further sub-categorisations. International Codes for Diagnosis (ICD) are also an option to maximise specificity.

Clearer indications of the degree of abuse could be used. For example, the study conducted by Cox, Andrade, Lungelow, *et al* (2007) and Van As, *et al* (2001) in Cape Town document the degree of injury by means of clear anatomical categories: the first degree describes abrasions or superficial lacerations involving the vulva and anal margin perineal skin; second degree tears involve the pre-vaginal or transverse perineal muscle but

spares the anal sphincters; third degree injury involves compound lacerations involving the vaginal and anal canals and sphincters. This is far more specific than physical findings that are "conclusive" or "suggestive" of abuse, which may also vary between practitioners. Other researchers are of the opinion that categories of abuse should not be based on the type of abuse, but rather on motive (Southall, Samuels and Golden, 2003).

In addition, the Stat Form makes use of some outdated terminology such as the racial categories and terms such as mental retardation.

4.9 Further Studies

This study has been the first to analyse data on the abused-disabled attending the TBC. A form that is standardised for national use, based on international standards, should be implemented so that limited studies, such as this one, can contribute to a larger picture. Other quantitative studies in this field could examine the following two issues:

Firstly, how other child abuse clinics in South Africa would compare to the findings of the TBC in terms of:

- Whether criminal charges are laid more or less often on behalf of disabled children and how the results of the legal proceedings differ between disabled and non-disabled children;
- Who are the perpetrators abusing the disabled? Do they differ from the perpetrators abusing the non-disabled?

- More sophisticated statistical analyses on the data could be carried out to examine who is at most risk in the disabled population;
- Tracking the prevalence of abuse over a period of time to establish increasing or decreasing trends.

Secondly, potential qualitative studies should:

- Conduct a case-series analysis on one type of disabled population (for example, the blind) who have evidence of being abused and draw conclusions on the similarities and differences found in these cases;
- Examine the legal implications of a disabled child giving testimony and consent and compare the practices with other countries;
- Conduct research on the perpetrators of disabled children from archival records. The research could explore the methods of 'grooming' used to lure the disabled;
- Conduct interviews with a group of disabled people who could relate their experience of the process of reporting the abuse as both medical and legal experiences could be traumatic.
- Conduct interviews and/or use qualitative questionnaires to determine the level of satisfaction patients experienced attending the TBC.

5 Conclusion

The study examined the non-disabled, disabled and multiple-disabled in relation to child maltreatment. Characteristics such as age, gender and population group were examined and the results varied depending on the combination of characteristics examined in this population.

As has been found in previous studies, this study has concluded that the disabled have a greater *prevalence* of all forms of abuse than their non-disabled counterparts. However, this does not translate to a greater *risk* of abuse. What is clear is that all "the disabled" are not abused equally. Certain disabilities are prone to particular types of abuse. The mentally and physically disabled are at an increased risk of sexual abuse whilst the learning disabled are vulnerable to neglect.

Those with an additional disability were not neglected more than the non-disabled- their basic needs appear to have been met. However, they are at increased risk for sexual abuse, suggesting that their carers, familial or institutional, are abusing them.

Due to the fact that disabled children may be unable to describe an incident of abuse, medical staff at the Clinic made greater use of medical investigations to verify their suspicions. More swabs and blood tests were ordered for the disabled population group.

The study has illuminated some aspects relating to the abuse of the disabled in the population attending the Clinic. Further research in other clinics in South Africa needs to be conducted in order to comprehend the magnitude and nature of this phenomenon so that the welfare of the children can be properly addressed and improved. The present study is of interest to paediatricians and others in the child welfare fields in identifying risks and targeting services.

6 Appendix A: The Stat Form

7 References

1. American Academy of Pediatrics (2009) Section on Radiology: Diagnostic Imaging of Child Abuse. *Pediatrics,* 123(5): 1430-1435.
2. Andersson, N. and Ho-Foster, A. (2008) 13,915 Reasons for Equity in Sexual Offences Legislation. *International Journal for Equity in Health,* 7: 20-26.
3. Argent, A.C., Lachman, P.I., Hanslo, D. and Bass, D. (1995) Sexually Transmitted Diseases in Children and Evidence of Sexual Abuse. *Child Abuse and Neglect,* 19:1303-1310.
4. Barker, J. and Hodes, D. (2004) *The Child in Mind. A Child Protections Handbook.* Routledge, London, U.K.
5. Bross, D. (2001) Protecting children from maltreatment in a hospital setting. *Child Abuse and Neglect*, 25: 1551-1553.
6. Cashmore, J. (2006) Ethical issues concerning consent in obtaining children's reports on their experience of violence. *Child abuse and Neglect*, 30: 969-977.
7. Collings, S.J. (1991) Child Sexual Abuse in a sample of South African males: prevalence and risk factors. *South African Journal of Psychology*, 21(3): 153-158.
8. Cooper, E. (2002) Sexual abuse and learning disability. *The Journal of Family Planning and Reproductive Health Care,* 28 (3): 123-124.
9. Couper, J. (2002) Prevalence of Childhood Disability in Rural KwaZulu-Natal. *South African Medical Journal,* 92 (7): 549-552.
10. Cox, S., Andrade, G., Lungelow, D., Schloetelburg, W. and Rode, H. (2007) The Child Rape Epidemic. Assessing the incidence at Red Cross Hospital, Cape Town, and establishing the need for a new national protocol. *South African Medical Journal,* 97 (10): 950-955.
11. Dawes, A. and Mushwana, M. (2007) Monitoring Child Abuse and Neglect. In A. Dawes, R. Bray and A. van der Merwe (Eds.)

Monitoring Child Well-Being. A South African Rights-Based Approach (pp 269-292). Cape Town. HSRC Press.

12. Dawes, A., Borel-Saladin, J. and Parker, Z. (2004) Measurement and Monitoring. In L.M. Richter, A. Dawes and C. Higson-Smith (Eds.), *Sexual Abuse of Young Children in South Africa* (pp. 176-206). Cape Town: HSRC Press.
13. Dawes, A. and Ward, C. (2008) Levels, trends and determinants of child maltreatment in the Western Cape Province. In R. Marindo (Ed.), *The state of the population in the Western Cape Province*. Cape Town: HSRC Press.
14. Dickens, J. (2007) Child Neglect and the Law: Catapults, Thresholds and Delay. *Child Abuse Review*, 16: 77-92.
15. Dickman, B.J. and Roux, A.J. (2005) Complainants with Learning Disabilities in sexual abuse cases: a 10–year review of a psycho-legal project in Cape Town, South Africa. *British Journal of Learning Disabilities,* 33: 138-144.
16. Drake, B. and Jonson-Reid, M. (1999) Some thoughts on the increasing use of administrative data in child maltreatment research. *Child Maltreatment*, 4(4): 308-315.
17. Dubowitz, H. (2007) Understanding and addressing the "neglect of neglect": Digging into the molehill. *Child Abuse and Neglect*, 31: 603-606.
18. Dunkle, K.L., Jewkes, R.K., Brown, H.C. *et al* (2004) Prevalence and Patterns of Gender- Based Violence and Revictimisation among Women attending Antenatal Clinics in Soweto, Johannesburg. *American Journal of Epidemiology,* 160: 230-239.
19. English, D.J., Thompson, R., Graham, J.C. and Briggs, E.C. (2005) Towards a definition of neglect in young children. *Child Maltreatment*, 10 (2): 190-206.
20. Faller, K.C. (2007) *Interviewing Children about Sexual Abuse. Controversies and Best Practice.* Oxford University Press, Oxford, U.K.

21. Finkelhor, D. (1994) Current Information on the Scope and Nature of Child Sexual Abuse. *The Future of Children,* 4(2): 31-53.
22. Flaherty, E.G., Jones, R. and Sege, R. (2004) Telling their stories: primary care practitioners' experience evaluating and reporting injuries caused by child abuse. *Child Abuse and Neglect,* 28: 939-945.
23. Gallagher, B. (2000) The extent and nature of known cases of institutional abuse. *British Journal of Social Work,* 6: 795-818.
24. Gilbert, R., Kemp, A., Thoburn, J., Sidebotham, P. Radford, L., Glaser, D. *et al.* (2009) Recognising and responding to child maltreatment. *Lancet*, 373: 167-180.
25. Gilbert, R., Widom, C, Browne, K., Fergusson, D. and Webb, E. (2009) Burden and consequence of child maltreatment in high-income countries. *Lancet*, 373 (9657): 68-80.
26. Govindshenoy, M. and Spencer, N. (2006) Abuse of the disabled child: a systematic review of population-based studies. *Child: Care, Health and Development,* 33: 552-558.
27. Groce, N.E. (2004) Rape of individuals with disability. *Lancet,* 361: 1401-1402.
28. Haeringen, A.R., Dadds, M. and Armstrong, K.L. (1998) The Child Abuse Lottery- Will the doctor suspect and report? Physician attitudes towards reporting of suspected child abuse and neglect. *Child Abuse and Neglect*, 22 (3):159-169.
29. Haffejee, I.E. (1991) Sexual Abuse of Indian (Asian) Children in SA: First report in a community undergoing cultural change. *Child Abuse and Neglect*, 15: 147-151.
30. Hesselink-Louw, A. and Olivier, K. (2001) A criminological analysis of crimes against disabled children: the adult male sexual offender. *CARSA*, 2(2): 15-20.
31. Higson-Smith, C., Lamprecht, L. and Jacklin, L. (2004) Access to specialist services and the criminal justice system: data from the Teddy Bear Clinic. In L.M. Richter, A. Dawes and C. Higson-Smith

(Eds.), *Sexual Abuse of Young Children in South Africa* (pp. 335-355). Cape Town: HSRC Press.

32. Iezzoni, L.I. (1997) Assessing Quality Using Administrative Data. *Annals of Internal Medicine,* 127: 666-674.
33. Jaudes, P.K. and Mackey-Bilaver, L. (2008) Do Chronic Conditions increase young children's risk of being maltreated? *Child Abuse and Neglect,* 32: 671-681.
34. Jewkes, R. and Abrahams, N. (2002) The Epidemiology of Rape and Sexual Coercion in South Africa. *Social Science and Medicine,* 55 (7): 1231-44.
35. Jewkes, R., Penn-Kekana, L. and Rose-Junius, H. (2005) "If they rape me, I can't blame them": Reflections on gender in the social context of child rape in South Africa and Namibia. *Social Science and Medicine*, 61: 1809-1820.
36. Jewkes, R., Vundule, C., Maforah, F. and Jordaan, E. (2001). Relationship dynamics and adolescent pregnancy in South Africa. *Social Science and Medicine*, 52 (7):733-744.
37. Jinich, S., Paul, J., Stall, R., Acree, M., Kegeles, S., Hoff, C. and Coates, T.J. (1998). Childhood sexual abuse and HIV risk-taking behaviour among gay and bisexual men. *AIDS and Behaviour*, 2: 41-51.
38. Johnson, F.C. (2002) Child Maltreatment 2002: Recognitions, reporting and risk. *Pediatrics International,* 44: 554-560.
39. Johnson, F.C. (2004) Child Sexual Abuse. *Lancet*. 364: 462-470.
40. Kendall-Tackett, K., Lyon, T. Taliaferro, G. and Little, L. (2005) Why child maltreatment researchers should include children's disability status in their maltreatment studies. *Child Abuse and Neglect*, 29, 147-151.
41. King, G., Flisher, A.J., Noubary, F., Reece, R., Marais, A. and Lombard, C. (2004) Substance abuse and behavioural correlates of sexual assault among South African adolescents. *Child Abuse and Neglect*, 28: 683-696.

42. Kvam, M.H. (2000) Is sexual abuse of children with disabilities disclosed? A retrospective analysis of child disability and the likelihood of sexual abuse among those attending Norwegian hospitals. *Child Abuse and Neglect*, 24(8): 1073-84.
43. Kvam, M.H. and Braathen, S.H. (2008) "I thought…maybe this is my chance": Sexual abuse against girls and women with disabilities in Malawi. *Sexual Abuse: A Journal of Research and Treatment*, 20 (1): 5-24.
44. Lachman, P. (2004) Understanding the current position of research in Africa as the foundation for child protection programs. *Child Abuse and Neglect*, 28: 813-815.
45. Lalor, K. (2004) Child Sexual Abuse in Sub-Saharan Africa: a literature review. *Child Abuse and Neglect*, 28: 439-460.
46. Laraque, D., DeMattia, A. and Low, C. (2006) Forensic Child Abuse Evaluation. *Mount Sinai Journal of Medicine*, 73(8):1138-1147.
47. Levi, B.H. and Brown, G. (2005) Reasonable suspicion: A Study of Pennsylvania Pediatricians Regarding Child Abuse. *Pediatrics*, 116 (1): 2005-2016.
48. Madu, S.N. and Peltzer, K. (2001) Prevalence and patterns of child sexual abuse and victim-perpetrator relationship among secondary school students in the Northern Province (South Africa). *Archives of Sexual Behaviour*, 30 (3): 311-321.
49. Matzopoulos, R. and Bowman, B. (2006) Violence and children in South Africa. Violence and children in South Africa. In Van As and Naidoo (Eds), *Paediatric Trauma and Child Abuse,* Cape Town: Oxford University Press.
50. McKillup, S. (2005) *Statistics Explained: An Introductory Guide for Life Scientists.* Cambridge University Press, Cambridge, United Kingdom.
51. McSherry, D. (2007) Understanding and addressing the "neglect of neglect": Why are we making a molehill out of a mountain? *Child Abuse and Neglect*, 31: 607-614.

52. Miller-Perrin, C.L. and Perrin, R.D. (2007) *Child Maltreatment: An Introduction.* Sage Publications, California, United States of America.
53. Muram, D., Heger, A., Finkel, M.A. and Simmons, K.J. (2003) Round Table Discussion: The Medical Evaluation of Sexually Abused Children. *Journal of Paediatric and Adolescent Gynaecology*, 16: 5-14.
54. Naidoo, S. (2000) A profile of the oro-facial injuries in child physical abuse at a children's hospital. *Child abuse and Neglect*, 24: 521-234.
55. National Center on Child Abuse and Neglect (1993) Report on the maltreatment of children with disabilities. Washington, DC. *Department of Health and Human Services* (No 20-10030).
56. Pierce, L. and Bozalek, V. (2004) Child abuse in South Africa: an examination of how child abuse and neglect are defined. *Child Abuse and Neglect*, 28: 817-832.
57. Runyan, D.K., Cox, C.E., Dubowitz, H., Newton, R.R., Upadhyaya, M. and Kotch, J.B. (2005) Describing Maltreatment. Do Child Protection Service Reports and Research Definitions Agree? *Child Abuse and Neglect,* 29: 461-477.
58. Saloojee, G., Phohole, M., Saloojee, H. and Ijsselmuiden, C. (2006) Unmet health, welfare and educational needs of disabled children in an impoverished South African peri-urban township. *Child: Care, Health and Development*, 33 (3): 230-235.
59. Seedat, M., Van Niekerk, A., Jewkes, R., Suffla, S. and Ratele, K. (2009) Violence and Injuries in South Africa. Prioritising an agenda for prevention. *Lancet,* 374: 1011-1022.
60. September, R.L. (2006) The Progress of Child Protection in South Africa. *International Journal of Social Welfare*, 15 (Supplement 1), S65-S72.
61. Sidebotham, P. and Heron, J. (2006) Child maltreatment in the "children of the nineties": A cohort study of risk factors. *Child Abuse and Neglect,* 30: 497-522.

62. Sinal, S.H., Lawless, M., Rainey, D.Y. , Everett, V.D., Runyan, D.K., Frothingham, T. *et al* (1997) Clinical agreement on Physical Findings in Child Sexual Abuse. *Archives of Paediatric and Adolescent Medicine,* 151: 497-501.

63. Southall, D.P., Samuels, M.P. and Golden, M.H. (2003) Classification of Child Abuse by motive and degree rather than injuries. *Arch Dis Child,* 88: 101-104.

64. Spencer, N., Devereux, E., Wallace, A., Sundrum, R., Shenoy, M. Bacchus, C., *et al.* (2005) Disabling Conditions and Registration for Child Abuse and Neglect: A Population-Based Study. *Pediatrics*, 116: 609-613.

65. Sullivan, P.M. and Knutson, J.F. (2000) Maltreatment and Disabilities: A population based epidemiological study. *Child Abuse and Neglect,* 9: 275-1288.

66. Theodore, A.D. and Runyan, D.K. (2006) A survey of paediatricians' attitudes and experiences with court in cases of child maltreatment. *Child Abuse and Neglect*, 30: 1353-1363.

67. Trocmé, N.M., MacLaurin, B.J. Fallon, B.A., Dacuik, J.F., Tourigny, M. and Billingsley, D.A. (2001) Canadian Incidence Study of Reported Child Abuse and Neglect: Methodology. *Canadian Journal of Public Health,* 92 (4): 259-263.

68. Van As, A.B., Withers, M. Du Toit, N., Miller, A.J.W. and Rode, H. (2001) Child Rape- Patterns of injury, management and outcome. *South African Medical Journal,* 9 (2): 34-38.

69. Walker, S.P. and Louw, D.A. (2003) The South African Court for Sexual Offences. *International Journal for Law and Psychiatry,* 26: 73-85.

70. Westcott, H.L. and Jones, D.P.H. (1999) Annotation: The Abuse of Disabled Children. *Journal of Child Psychology and Psychiatry,* 40 (4): 497-506.