THE INTEGRATED MODELED THEORY ON UNDERSTANDING AND PREVENTING THE INCIDENCE OF CHILD ABUSE IN SOUTH AFRICA

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Abstract: This paper is based on an in-progress PhD thesis themed: "Modeling the Differential Incidence of Child Abuse, Neglect and Exploitation in Poor Households in South Africa". The thesis argues that the gaps and shortcomings in the prevention of child abuse are, to a large extent, the consequence of the unclear understanding of the factors contributing to the incidence of child abuse. Similarly, the ineffectiveness of interventions against child abuse is the result of the over-estimation of economic factors over other contributing factors. The aim of the thesis is three-fold. Firstly, to review theories explaining crime causation in general and child abuse in particular. Secondly to develop the Integrated Modeled Theory as a model that facilitates the understanding the incidence of child abuse. Thirdly, to suggest the IMT as a tool that assists decision-making processes for prevention of and intervention against child abuse.

Te paper focuses on economic, social and cultural factors and emphasizes on their importance in the incidence of child abuse in one hand, and the care, protection and well-being of children in the other hand.

Keywords: Bayesian Networks, child abuse, child abuse prevention, contributing factors, Integrated Modeled Theory, intervention against child abuse.

INTRODUCTION

The care, protection and well-being of children are considered (although theoretically) to be a priority of the South African Government in view of the provisions of the Constitution (Act 108 of 1996), the Children Act (Act No. 38 of 2005) and other related legislation and policies. Section 28 (1) (a), (b) and (c) of the Constitution comprise the fundamental social and economic rights of the child. They include the right to a name and nationality at birth, to a family care or parental care, or to appropriate alternative care when removed from the family environment and the right to basic nutrition, shelter, basic care, service and social services.

Section 28 (1) (d), (e) and (f) of the Constitution contain the rights of children to protection. These rights include the right to be protected from maltreatment, abuse or degradation, to be protected from exploitative labour practices and not to be required or permitted to perform work or provide services that are inappropriate or place at risk the child's well-being, education, physical or mental health or spiritual, moral or social development. The crux on the rights of children in South Africa is comprised in Section 28 (2) of the Constitution that: "A child's best interests are of paramount importance in every matter concerning the child". Additional to the provisions of the Constitution, and specifically for the purpose of this paper, Section 12 (1) of the Children's Act stipulates that: "every child has the right not to be subjected to social, cultural and religious practices which are detrimental to his or her well-being".

Child abuse is a complex phenomenon to understand, prevent and manage because although its consequences are disastrous, the factors contributing to its occurrence remain ignored, misunderstood and sometimes misinterpreted. Goldman, Salus, Wolcott and Kennedy [6] underline the complexity of understanding child abuse because it does not have a single known cause. They also emphasize that there is no single description for abusive families and that child abuse happens across all social groups in the society. The authors understand that there have not been specific causes leading parents and caregiver to become abusive towards their children. However research shows the existence of some risk factors or attributes that can be associated with the incidence of child abuse. For Goldman et al. [6], the existence of a combination of such attributes in a family equal to the opportunity and probability of family living in such families to be abused. The authors warn that the presence of some factors in a family does not necessarily imply the incidence of child abuse. This means that in the case of two different families, the factors contributing to the incidence of child abuse in

one family may not necessarily contribute to the incidence of child abuse in the other family. Goldman et al. [6] acknowledge that there is a relation between poverty and the incidence of child abuse but at the same time they caution that there are many poor people who do not abuse their children.

Goldman et al. [6] classify child abuse risk factors in four domains. The four domains are firstly the parent or caregiver factors, secondly the family factors, thirdly the child factors and lastly the environmental factors. Economic, social and cultural factors are present in all these domains as it will be demonstrated by this paper.

It is true that many cases of child abuse and neglect are related to the actions of the parents or caregivers. Newberger, Newberger and Hampton [14] argue that child abuse and neglect are catch-all euphemisms for a variety of childhood injuries that are believed to be derived from parental acts of omission or commission. Parental acts refer to their responsibility to cater (economic factors) and care (social and cultural factors) for their children. Parents' relation with their children is also important in securing their care and protection. Such relation concerns the social fabric, the moral and the cultural mores of the society in general and of the parents and caregivers in particular.

The discourse on the incidence of child abuse sets a good ground for the consideration of economic, social and cultural factors in explaining child abuse. The 2002 World Report on Violence and Heath [10], in the section on child abuse and neglect by parents and other caregivers, acknowledges that child abuse is a crucial problem. According to the report, the term "battered child syndrome" was coined to characterise the clinical manifestation of serious abuse in young children. Now, four decades later, there is clear evidence that child abuse is a global problem. It occurs in a variety of forms and is deeply rooted in cultural, economic and social practices. Solving this problem, however, according to the report, requires a much better understanding of its occurrence in a range of settings, as well as of its causes and consequences in these settings.

Theoretical approach is good in facilitating the understanding of the incidence of child abuse. Tzeng, Jackson & Karlson (as cited in Pierce and Bozalek) [16] acknowledge that there have been many theoretical explanations for child abuse and neglect based on experiences in the United States and the United Kingdom, but most explanations focus on parent-child or family interactions. Yet, parental responsibility on its own does not justify the incidence of child abuse as Pierce and Bozalek) [16] further explain. Gil and others (as cited in Pierce and

Bozalek) [16], consider child abuse as a social problem. Gil includes poor housing, inadequate economic support for families, and unsafe communities as contributing to child abuse.

Because of the multitude of factors contributing to the incidence of child abuse, there is a need for a much integrated theory in both understanding and solving the incidence of child abuse. The Integrated Modelled Theory (IMT), as proposed by the thesis and this paper, is the catalyst in facilitating both the understanding of the incidence of child abuse and the decision making process to address the contributing factors. The IMT analyses the links and interdependences among economic, social and culture factors and between these factors and the incidence of child abuse to facilitate understanding of, prevention and interventions against child abuse.

I. Definition of the Concept "Child Abuse"

In a simple language, child abuse means any act be it a commission or an omission that harms a child. An inclusive and self-explanatory definition of child abuse is borrowed from Munro [13] who cites the British National Commission of Inquiry into the Prevention of Child Abuse. According to the Commission: "*Child abuse consists of anything which individuals, institutions, or processes do or fail to do which directly or indirectly harms children or damages their prospects of safe and healthy development into adulthood*".

This definition takes the incidence of child abuse out of the confines of a family or household. It brings into play two critical issues, the institutions as well as the systems or processes as contributing to the incidence of child abuse. For Munro [13], systems abuses occur whenever the operation of legislation, officially sanctioned procedures or operational practices within systems or institutions is avoidably damaging to children and their family.

II. Theories in Understanding Child Abuse

The thesis and this paper focus on social research as they aim to generate knowledge about the understanding of and the prevention and intervention against the incidence of child abuse. The thesis and this paper in particular adopt Mouton's perspective on the notion of social change through social research. Mouton [12] suggests that in the final instance, all research aims at improved understanding by describing, explaining and evaluating phenomena in the social world. There are therefore, various interpretations of the nature of the social world that affect manners in which it is studied [12]. In the case of the thesis and this paper, theory is a practical tool that assists in the task of achieving social change.

Neuman [15] defines "Theory" as a system of interconnected abstractions or ideas that condenses and organizes knowledge about the social world. A theory is a compact way to think of the functioning of the social world. The use of theory is not only to situate the research within the existing thinking but also to compare the researcher's thinking and findings with evidence thus developing a new model. In the case of the research and this paper, it is the development of the Integrated Modeled Theory.

Newberger et al. [14] argues that the construction of scientific theory is also a process of searching for pathways through experience in order to explain cause and effect. The research and this paper are theory-based since they suggest the development of a new model that combines factors from different theories to facilitate the understanding of the incidence of, and the prevention and intervention against the incidence of child abuse.

In developing the Integrated Modeled Theory as a new model in understanding, preventing and intervening against child abuse, the research and this paper looked at the existing theories that ascertain the evidences on the incidence of child abuse. The economic, social and cultural theories are the focus of this paper because of the emphasis on the links between economic, social and cultural factors in the incidence of child abuse and how to address such factors in the search for child care, protection and well-being.

III. ECONOMIC THEORY ON CRIME CAUSATION

Social scientists, economists, activists and researchers attribute crime causation to economic incentives in various ways. Economic theory justifies the contribution of poor economic conditions in the incidence of crime. Poor economic conditions contribute to child abuse and neglect because of the inability of poor families to provide for the basic needs of their children. Poor economic conditions are also conduits through which other factors contribute to the incidence of child abuse.

Rebirth Africa Life on the Continent (RALC) [17] emphasizes on the breakdown of family structures, the "Group Area Act" and the "Bantu Policy" as three main causes for crime causation in an article entitled Child Abuse and Sexual Exploitation in Africa[1i].

The "Bantu Policy" is an economic exclusion strategy of the Apartheid regime that emphasised on

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[1] Child Abuse: Sexual exploitation in Africa:
www.rebith.co.za/Child_abuse_and_sexual_exploitation_in_Africa.htm

a low education level aimed to direct black or non-white children to the unskilled labour market, commonly known as gutter education. The strategy was to ensure white control over the economic sector and the prosperity of South Africa

RALC regrets that: "*Our children became the scatterings of South Africa. Child prostitution in South Africa is usually a case of survival sex. Children are often forced to work because of economic circumstances – they have to contribute to the family's income or provide for themselves*".

Child exploitation included also, according to RALC, children being used as drug carriers or being made to work under inappropriate environments and conditions in the agriculture and domestic services.

Witte and Witt [22] argue that crime is closely related to work, education, poverty and truancy, and youth unemployment which are products or even measures of social exclusion. They further argue that from the economic theory point of view, a criminal activity is similar to paid employment in that it requires time and produce an income or satisfaction.

The economic theory on the incidence of child abuse explains the inability of poor households to provide for the basic needs of their children and their safety resulting in most cases in child neglect. Goldman et al. [6] demonstrate that various theories by Rod Plotnik, a professor from San Diego State University, describe the association between poverty and maltreatment.

The first theory of Rod Plotnik, demonstrates the link between low income and family stress. Family stress, leads to higher chance of child abuse. The majority (68%) of South African children live in poor families. These families have no or low income making it difficult to cater for the basic needs of the children and to provide them with sufficient care and protection.

A second theory of Rod Plotnik demonstrates the link between parents' low incomes and high risk of child abuse. This means that poor parents are often unable to protect their children against high-risk neighbourhoods with unsafe or crowded housing and inadequate day care [6].

A third theory of Rob Plotnik is about some characteristics may contribute to the incidence of child abuse because of the association between parents' poverty and abusive behaviour. They provide an example of a parent with substance abuse problem (social factor) that impedes the parent's ability to obtain and maintain a job, which also may contribute to abusive behaviour [5]. This theory explains the link between economic and social theories as it will be explained later in the Integrated

Modeled Theory. A final theory by Rod Plotnik is that child abuse cases in poor families, although some time at same rates as in other families, are more exposed and reported. The high reporting in poor family is caused by the constant contact with the social and criminal justice systems. This might not necessarily be the case in South Africa but there are two important facts in this theory. Firstly, children from poor families suffer the consequences of child abuse more than those in rich families. Secondly, it is evident that abuse in poor families will be more exposed that abuse in rich families because of promiscuity, reporting to public hospital and seeking free medical attention in some instances.

Vetter and Silverman [21] argue that lack of skills, education and employment are some of the consequential to excessive personal levels of stress for parents, which perpetuate child abuse and negligence. Due to poverty, unemployment and lack of skills parents can inhibit their and community participation in social and economic life. Non-progressive communities suffer from skills deficiency brought about by overall structural changes in the economy and politics because their skills are dependent and are driven by the secondary economic investments activities and these skills are fragile and are easily displaced and mismatched, with any shift in the economy.

The ratio child – breadwinner contributes to the incidence of child abuse and neglect. It is possible that the greater the number of children under the care of a parent or caregiver, the less attention is given to each child. Goldman et al. [6], referring to previous, demonstrate the link between child abuse and the size of the family. According to the authors child abuse and neglect often occurs in families with greater number of household occupants. This means that the relation between the child and the multitude of the household's occupants is impeded by various factors such as receiving instructions from various relatives, experiencing on and off relationships in the household (example of a mother living with different boy-friends or relatives). In some cases, children are under the care and supervision of grand parents who have no authority over them and who are not able to provide necessary care and supervision.

The review above provides significant economic factors that contribute to the incidence of child abuse and important for the modeling part of this paper. They are low level of education, access to labour market (unemployment), type of housing, ration child-breadwinner and low income.

Economic factors do not have the monopoly of explaining the incidence of child abuse, it is therefore important to explore other non-incentive contributing factors. The combination of economic and non-incentive factors will provide a clear explanation of the incidence of child abuse as already shown by RALC [17] and Goldman et al. [6].

IV.   SOCIAL THEORY ON CHILD ABUSE

The social theory on child abuse refers to the way children are brought up in their families and the society and the impact of their relations with their parents, care givers and the community members on their care and protection (abuse or wellbeing). According to Giddens [5], the social environments in which we exist do not just consist of random assortments of events or actions. There are underlying regularities, or patternings, in how people behave and in the relationships in which they stand with one another. Giddens [5] argues that the actions of all of us are influenced by the structural characteristics of the societies in which we are brought up and live; at the same time, we recreate (and also to some extent alter) those structural characteristics in our actions. Relating to this paper, Giddens's assertion is that social structure play an important role in children's life and their interaction with their parents, caregivers and the society as the main caregiver. Jones, Picket, Oates and Barbor [7] confirm that many social trends affecting parenting contribute to child abuse.

Amongst social factors contributing to the incidence of child abuse, RALC emphasizes that the breakdown of family structures promoted by the past Apartheid government forced parents to travel far distances to get to work or to work away from home. The "Group Area Act" stipulated locations where non-whites could live and dictated the resources available to them (social exclusion). Jones et al. [7] are of the same view, they argue that the mobility of families implies on less intense contact with extended families. It becomes therefore difficult for parents to learn about child and baby care by observation at close quarters [7]. Marriage break-ups cause single parent families and social acceptance of unmarried parenthood. Jones et al [7] acknowledge that there is no authoritative study on the impact of marital breakdown on children, but clinical experience suggests that arguments, bitterness and eventual separation frequently cause deep harm. Many children feel torn by powerful divided loyalties and these children feature disproportionately in referrals to social and psychiatric agencies.

The most crucial factors from the social theory include amongst other substance abuse, parental history and cycle of abuse, marital conflict, domestic violence and single parenthood according to Goldman et al. [6].

On parental histories and cycle of abuse, Goldman et

al. [6] argue that the way parents were brought up has an influence in how they will behave as parents. Those, who had bad or poor role models, will not provide good parental role modeling to their children. Similarly, parents who lived in conditions whereby their needs where not met will have difficulty to satisfy the needs of their children. The authors demonstrate that some abusive parents were abused as children. This assertion sustains the discourse of the perpetuation of crime against children because of the normalization of violence that instills violent behavior in children.

Social factors seem to be directly related and influenced by economic factors. This means that when economic factors are negative, they negatively affect social factors too. Social factors contribute directly to the incidence of child abuse because of the interactions between the parents, care givers, other members of the society and children. These interactions are sometimes characterised by domination and class struggles. Children are abused or neglected because they are classless and not considered by those who are supposed to protect them.

Social factors are therefore considered equally in the understanding of, prevention and intervention against the incidence of child abuse. The most crucial social factors considered in this paper are parenting skills, substance abuse, family mobility, past abuse of caregivers and domestic violence.

V.   CULTURAL THEORY ON CHILD ABUSE

The understanding of the incidence of child abuse is an unfinished debate consisting of various theories with complementing explanations. Economic and social theories have assisted in understanding partly the incidence of child abuse. The cultural theory is also critical and provides additional meaning to the equation of understanding the incidence of child abuse.

In considering culture in the incidence of child abuse, Korbin [9] argues that culture does not work on its own or in a vacuum, but in transactions with other factors at other ecological levels. Culture can bring with it both risk and protective factors, whose impact varies only between cultures but also within any culture. One promising direction to get a better handle on culture is to take a more contextual view by examining the level of the neighborhood or community. Neighborhood generally refers to a bounded geographic area.

In the context of a multi-cultural country such as South Africa, defining culture is not an easy task. One dimension of understanding culture in South Africa is through the four different racial groups characterised as the African (or Black), the White, the Coloured and the Asian (or Indian) cultures. It is correct that there are some cultural practices that are common to people of the same race but is difficult if not impossible to probe the exclusivity of most cultural practices to some races. In some research for instance, coloured people are referred to as having a culture of violence. This does not mean that every coloured person is violent or that only coloured people are violent in South Africa.

Because cultural practices are dynamic and not exclusive to different race groups in South Africa, this paper broadly considers culture as any belief, tradition and or practice that infringes the right of the child and is harmful to the child. The World Report on Violence and Health [10], argues that any global approach to child abuse must take into account the different standards and expectations for parenting behaviour in the range of cultures around the world. The Report further defines culture (in the context of child abuse) as a society's common found of beliefs and behaviours, and its concepts of how people should conduct themselves. The Report, quoting Estroff [3] and Korbin [8], further states that included in these concepts are ideas about what acts of omission or commission might constitute abuse and neglect [10].

In adopting this definition of culture, this paper agree with the Report that culture helps define the generally accepted principles of child-rearing and care of children [10].

The Report warns that different cultures have different rules about what are acceptable parenting practices and that views on child-rearing across cultures might diverge to such an extent that agreement on what practices are abusive or neglectful may be extremely difficult to reach.

The Report suggests that nonetheless, differences in how cultures define what is abuse have more to do with emphasising particular aspects of parent behaviour. It appears, according to the Report, that there is general agreement across many cultures that child abuse should not be allowed and virtual unanimity in this respect where very harsh disciplinary practices and sexual abuse are concerned [10].

In South Africa, the Constitution protects the rights of children and for such reason any cultural practice that harms the child is defined as child abuse and consequently a crime against that child. A good understanding of culture when discussing child abuse, neglect and explanation is to consider the child at the centre of the discussion.

Because of the multitude of culture and influence thereof, children sometimes experience the clash between parental expectations derived from their

original culture background and the cultural environment in which their children now live. Another perspective is the excessive rights reserved to children.

In some households, <u>patriarchy</u> contributes to domestic violence and the abuse of children. Women and children are, in such households, considered as private property of the man resulting in conflict leading to abuse of the mother and children.

The <u>age of the child</u> plays a role in the incidence of child abuse. Goldman et al. [6] maintain that because of their size, infants and young children are vulnerable to child abuse such as the shaken baby syndrome.

The <u>gender of the child</u> contributes too to his or her vulnerability to abuse. In some African traditions for instance, <u>girls are married at early age</u> without their consent and mostly to older men. In South Africa there is a myth that sleeping with a virgin girl is a cure to HIV/AIDS. The myth is more observed in poor environment where it is believed that the younger the girl victim, the great chance of curing the perpetrator's HIV/AIDS status. This myth put girl at risk of sexual abuse.

Cultural practices prohibited by the South African Children's Act No 38 of 2005 include genital mutilation, virginity testing of girl children under the age of 16 and circumcision on of male children under the age of 16.

The importance of considering cultural theory is not to enumerate factors contributing to the incidence of child abuse because culture is dynamic. This paper is more concerned about the behaviors and practices that are acceptable and therefore favor the care, protection and well-being of children.

VI.   CONCLUSION ON THEORIES

The understanding of, prevention and intervention against child abuse is neither possible nor appropriate if the different theories are addressed individually. Gelles and Newberger (as cited in in Newberger et al.) [14] warn that an insufficient theory base may contribute more to the failure of programmes to treat child abuse than the lack of intervention resources. The authors demonstrated the need for further research and the importance of theory for knowledge, prevention and treatment of child abuse. Furthermore, after discussing various theories, Newberger et al. [14] came to a conclusion that each theory could be described as a "unitary theory" and for such reason; each theory offers an explanation of child abuse from a single point of view. In the case of the three theories elaborated above, the understanding of child abuse is limited to each theory although some links and interdependences have been

highlighted. The aim of the research and this paper is to develop the Integrated Modeled Theory that emphasize on the combination of various factors in achieving a clear understanding of, prevention and intervention against child abuse.

THE INTEGRATED MODELED THEORY

There are studies that have looked at the links between different factors in justifying the incidence of child abuse. Murray A. Straus and Christine Smith for instance, noted in their study of Physical Violence in American Families: Risk Factors and Adaptations to Violence in 8,145 Families, that one cannot simply single out an individual factor as the cause of abuse. The authors found that a combination of several factors is more likely to result in child abuse than is a single factor by itself. Also, for the authors, the sum of the effects of individual factors taken together does not necessarily add up to what they called the "explosive combinations" of several factors interacting with one another. Nonetheless, even "explosive combinations" do not necessarily lead to child abuse, according to the authors. (Family Patterns and Child Abuse: Physical Violence in American Families: Risk Factors and Adaptations to Violence in 8,145 Families)[2]

The Integrated Modeled Theory agrees with the authors that combining the factors does not lead to the incidence of child abuse. In resolving the worry of the authors, the Integrated Modeled Theory undertakes to analyze the links and interdependences between the factors and the probabilities of one factor causing another and at the end how different factors contribute to the incidence of child abuse. In doing so, the IMT emphasizes on assisting the decision making process to address individual factors in order to achieve the care, protection and well-being of the children.

The Integrated Modeled Theory (IMT) is therefore an adaptation of the Bayesian Networks system (Hugin 7,3 Researcher Software) in understanding the incidence of, the prevention and intervention against child abuse. The choice of the Bayesian Networks system was influenced by its ability to resolve problems under uncertainty using prior knowledge and experts' experience.

The IMT as represented below considers factors from the economy cluster, the social cluster and the culture cluster. These factors contribute equally to the

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[2] Causes and Effects of Child Abuse - The Violent Family
http://www.libraryindex.com/pages/1389/Causes-Effects-Child-Abuse-VIOLENT-FAMILY.html#ixzz0pKDBS3Ra

incidence of child abuse. The three clusters are interdependent and have direct link with the outcome factor "Child abuse". This means that the outcome factor "Child abuse" depends on and is affected by the states of each of the three clusters. Every time the states of one of these clusters change, or the states of a combination of some of these clusters change or the states of all of them change at the same time, the states of "Child abuse" also change.

The IMT demonstrates that there are links and interdependences between the three clusters. Social cluster for instance depends on and is influenced by economic and culture clusters. The states of the economic and culture clusters affect the states of social cluster. The culture cluster depends on and is too influenced by the economy cluster. In this case, if the economic condition is not good, the cultural practices tend to be negative. The impact of such links is explained in the quantification of the sub-model and the simulation of probabilities.
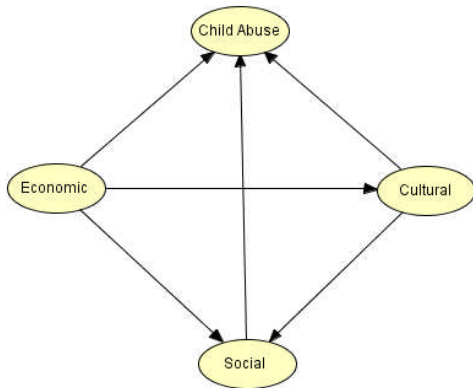
QUANTIFIED CLUSTERS
The links and interdependences between the three clusters are represented by the acyclic arrows above. The interpretation of these links and interdependences considering their equal contributing of all the three clusters to the incidence of "Child abuse" (the outcome factor) is represented as follows:
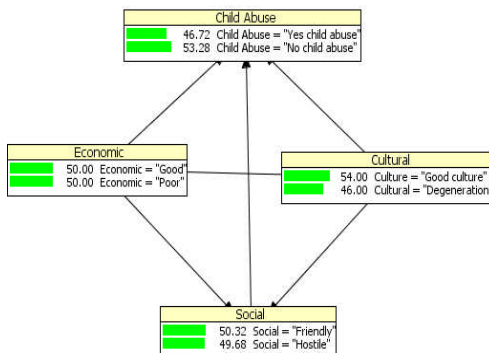
- The economy cluster remains unchanged

because it is not influenced or does not depend on any other cluster. The two states of the economy cluster are proportionally equal: "Good economy" at 50% and "Poor economy" at 50%

- The culture cluster changes because it is influenced and depends on the economy cluster. The probability of the culture cluster to be either good or degeneration depends on the states of the economy cluster. Considering the economy cluster at 50% good or poor, the states of the culture cluster change to: good culture 54% and degeneration 46%. This means that with an economy that is average, there is a high probability of culture to be good at a rate of 54% and bad or degeneration at 46%.

- The social cluster changes because it is influenced by both the economic and the culture clusters. This means that the states of the social cluster are dependent on the states of the economic and the culture clusters. Considering the states of the economy cluster at 50% good and 50% poor and the states of the culture cluster at 54% good and 46% degeneration, the states of the social cluster are 50.32 % friendly and 49.68% hostile.

- The outcome factor "Child abuse" changes because it depends and is affected by the three other clusters. Every time there is a change of the states of any of the clusters or the combination or all the three clusters, the states of "Child abuse" will also change. The two states of the outcome factor "Child abuse" are therefore 47% yes child abuse and 53% no child abuse.

VII. INFLUENCE DIAGRAMS: WHAT-IF SCENARIOS

According to Hugin Expert A/S[3], algebras for combining certain factors are not mathematically coherent and can lead to incorrect conclusions. For this reason, the Bayesian Networks system uses probabilities and uncertainties to untie the knot. The what-if scenario means that:

- If … condition, then … fact

- If … condition, then action or decision

- If … condition with certainty x, then fact with certainty f(x)

- The certainty of "A and B" is function of the certainty of A and the certainty of B.

The figure above demonstrates a normal distribution of the incidence of child abuse considering that all the factors have equal chance to be either good or bad

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[3] http://www.hugin.com/

according to the case of each particular factor. The implication of such normal equal distribution has already showed that, because the social cluster has two parents (in the BNs language) or depends on both cultural and economy clusters, the states of the social cluster are already unequal and tend, at a low percentage, towards a social friendly condition. Similarly, this scenario has an impact on the incidence of child abuse (47%).

In changing the states of the clusters to either maximum good or bad, the states of the child clusters (in the BNs language) or affected clusters will change where possible as well as the outcome factor (child abuse). The changes are also affected by the previous probabilities between parent and child factors and the direct or indirect connections to the outcome factor (child abuse).

First Scenario: Poor economy
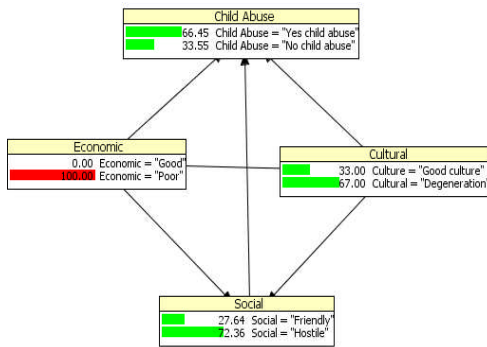
If the economy cluster is 100% "Poor", the probability of culture cluster is 67% to be "Degeneration", and the probability of social cluster to be "Hostile" is 72%. Consequently, the probability of "Child abuse" to occur rises to 66.45%.
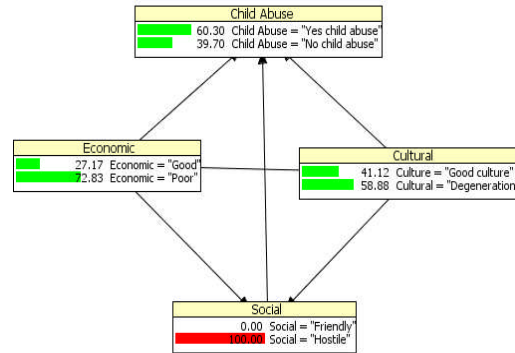
Second Scenario: Degeneration culture
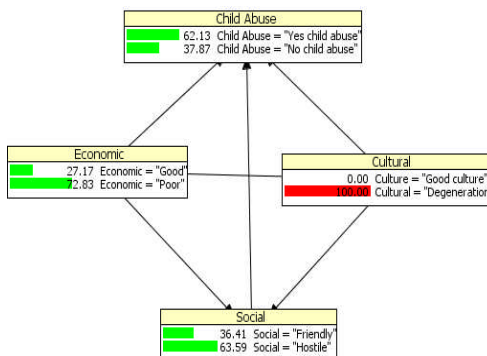
If culture is 100% "Degeneration", the probability of the social factor to be hostile is 63.59%. In such situation and considering the links and interdependences between the clusters, the economy
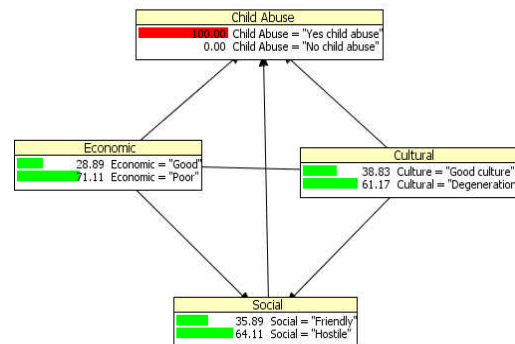
cluster is 72.83% poor. The probability of child abuse to happen is 62.13%.

Scenario 3: Hostile social factor

If the social cluster is 100% "Hostile", the probability of the culture to be degeneration is 58.88%. In such situation the economy cluster is 72.83% poor. As the consequence of these combinations, the probability of child abuse to occur is 60.30%.

Summary of the Incidence of "Child abuse"

The links and interdependences among the economic, social and culture clusters and their contribution to the incidence of child abuse are depicted in the above network. The network shows that the probability of child abuse to happen at 100% is influenced by the economy cluster being 71.11% poor, the culture cluster being 61.17% degeneration and the social cluster being 64.11% hostile.

## VIII. PREVENTION AND INTERVENTION MECHANISMS: DECISION TOOL

The IMT is a tool that facilitates the understanding of child abuse. The above networks show the links and interdependences among economic, social and culture clusters. The networks show also the probabilities of each individual cluster in contributing to the incidence of child abuse.

Similarly, the ITM informs decision-making processes for effective and efficient policy

development and implementation and other mechanisms for the prevention of and intervention against child abuse. The IMT facilitates the task of changing the contributing factors in order to achieve child care, protection and well-being.

Summary of Decision Tool

The ideal situation on the good care, protection and well-being of children means less or no incidences of child abuse. The network below denotes that, in order to prevent and intervene against the incidence of child abuse, there is a need to have a good economy (68.51%), a good culture (67.30%) and a friendly social environment (62.30%).
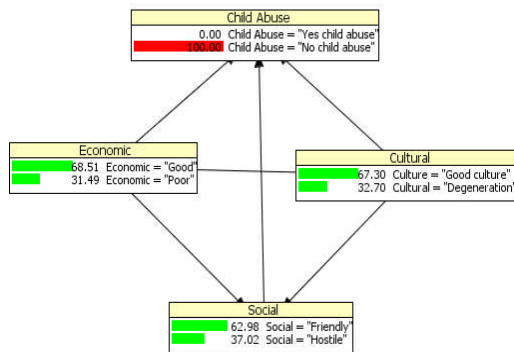
Achieving these positive milestones is a result of a combination of policies and actions in addressing the contributing variables from the economic, social and culture clusters. Three different networks are therefore possible in addressing the factors from the three different clusters:

Decision 1: Good economy
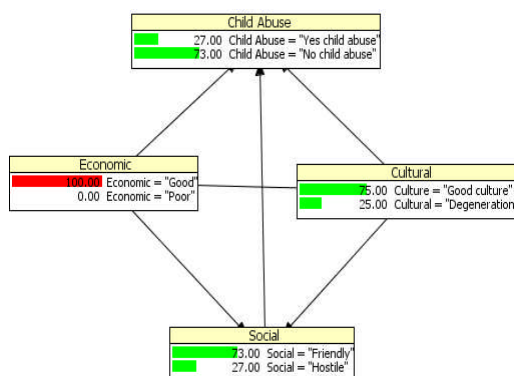
Because of its impact on social and culture clusters, the economy cluster plays a crucial role in addressing the incidence of child abuse. The above network shows that, if the economy is good (100%), the probability of culture to be good is 75%. Similarly, a

good economy provides 73% chance for the social environment to be friendly. In considering all these three positive probabilities, the likelihood of child abuse to occur is reduced at only 27%. The research and this paper do not dream of a case whereby the economy is prosperous at 100%. The use of the probabilities is to show how good policies and effective actions to address different variables from a cluster can influence other clusters and consequently the outcome factor (child abuse).

Policies and interventions to address economic contributing factors should be prioritised to give effect to policies and interventions in addressing social and cultural factors. However, these policies and interventions should be child related as the end result is the care, protection and well-being of children. Leatt, Rosa and Hall [11] suggest six critical poverty alleviation interventions in realising children's rights. In their publication titled: Towards a means to Live: targeting poverty alleviation to realise children's rights, they focus on social security, health, education, nutrition, housing and water programmes to realise the basic rights of children.

The socio-economic interventions or programmes are based on the Convention on the Rights of the Child (CRC) (ratified by South Africa in June 1995) and the Constitution of the Republic of South Africa (1996).

The socio-economic rights of children according to the CRC are:

Article 26: the right to benefit from social security, which includes social insurance

Article 27(1): the right of every child to a standard of living adequate for the child's physical, mental, spiritual, moral and social development

Article 28: the right to education, including free basic education

Article 24: the right to health and health services and

Article 32: the right to be protected from harmful work practices, and to be paid adequately for any work conducted.

The Constitution of the Republic of South Africa considers the following socio-economic rights:

Section 26 (1) Access to adequate housing (2) The state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of this right. (3) No one may be evicted from their home, or have their home demolished, without an order of court made after considering all the relevant circumstances. No legislation may permit arbitrary evictions.

Section 27 (1): Everyone has the right to have access to: a. health care services, including reproductive health care; b. sufficient food and water; and c. social security, including, if they are unable to support themselves and their dependants, appropriate social assistance. (2) The state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of each of these rights. (3) No one may be refused emergency medical treatment.

Section 28 (1): Every child has the right: c. to basic nutrition, shelter, basic health care services and social services; … (2) A child's best interests are of paramount importance in every matter concerning the child.

Section 29 (1): Everyone has the right: a. to a basic education, including adult basic education; and b. to further education, which the state, through reasonable measures, must make progressively available and accessible.

Social security is one of the major poverty alleviation programmes of the South African Government. Government is responsible for ensuring, via social assistance, that all people, including children, have a decent standard of living.

The South African White Paper for Social Welfare [4] defines 'social security' as wide range of public and private measures that provide cash or in-kind benefits, or both, first, in the event of an individual's earning power permanently ceasing, being interrupted, never developing, or being exercised only at unacceptable social cost and such person being unable to avoid poverty. And secondly in order to maintain children…"

There are three important cash grants for children in South Africa, they are the Child Support Grant (CSG), the Foster Child Grant (FCG) and the Care Dependency Grant (CDG). There are four types of social grants provided to adults, they are the Disability Grant (DG), the War Veteran's Grant (WVG), the Grant in Aid and the Old Age Pension (OAP). Grants targeted at adults also help children, as grants received are largely pooled as household income. Rosa, Leatt & Hall [18]. The economic conditions of the families have an adverse effect on access of children to education, heath care, transport, food as well as other basic needs such as housing or shelter.   Providing these grants to concerned households is a relief to their abuse, neglect and or exploitation in families that can not afford to satisfy the children's basic needs.

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[4] Department of Welfare and Population Development 1997

It must however be stressed that there have been inadequacies in the disbursement of these grants. In many instances there is a problem with the means test to assess eligibility leaving many children out of the system. Leatt et al. [11] demonstrate the exclusion from benefiting because of the means test. According to the authors, for those living in rural areas or informal settlements in urban areas, the monthly income threshold for the primary caregiver and their spouse is R1 100. For those in formal housing in urban areas, the threshold is R800. The primary caregiver of a child who is age eligible is required to show proof of identity, employment income and other means of supporting the child. The means test is unverified in the sense that the departmental officials processing applications do not contact banks and employers and remitters for corroboration, primarily because many of the eligible do not hold bank accounts and work in the informal sector, if they are working at all.

It must be highlighted that the means test and other procedures for the eligibility and disbursement of social grants must be reviewed and improved in order to facilitate access to grants by all children in need.

The direct costs of obtaining health care can account for a substantial proportion of households' income according to Shung-King, McIntyre & Jacobs [19]. When other direct costs associated with obtaining care (such as transport costs) are included, some studies have found that total direct costs can be as high as 10% of household income according to Lucas & Nuwagaba (as cited in Shung-King et al.) [19]. For Whitehead, Dahlgren & Evans (as cited in Shung-King et al.) [19], there is growing international evidence that health care costs can plunge households into poverty and that the likelihood of a poor household ever being able to move out of poverty diminishes when confronted with illness-related costs.

The provision of free health care is an internationally accepted and appropriate mechanism to alleviate the burden of health care costs for the poor. The authors of this paper use examples from other African countries, which show that the removal of user fees increases the utilisation of health care and frees up scarce household income for other uses. The case studies also show that the poor do enjoy proportionally greater benefit from the removal of user fees. It has to be assumed that the demonstrated overall benefit to poorer households of health service fee removal also benefits the children living in those households [19].

The school fee exemption and the school nutrition programmes are very essential in achieving child acre, protection and well-being. The majority of

South African children live in poor households. Because such households have no sufficient income, the access of children to school is not guaranteed and at the same time their participation is minimal because of hunger. The school fee exemption is a mechanism that facilitates access of children from poor households to attend school while the school nutrition programmes provides basic food to poor children thus improving their participation in the school learning process.

Other economic related interventions that directly target children include the provision of free basic services such as water and sanitation, housing and electricity. The provision of these services addresses poverty and therefore creates an opportunity for the good care, protection and well-being of children.

Interventions parents and or caregivers are very important in addressing poverty related factors that contribute to the incidence of child abuse. The most critical actions include improving the level of education of parents and or caregivers, creating and sustaining the employment sectors, increasing foreign direct investment and creating and sustaining formal as well as informal but regulated jobs.

Because of the interactions between parents and children, it is important to consider building and sustaining local community oriented development initiatives. The economic focus of such initiatives includes creating local employment opportunities through entrepreneurship, building skills and creating careers that will bring about change in the local economy. The initiatives should also address the attainment of basic community needs, maintenance of infrastructure and services as well the provision of general community services.

These types of interventions address both the economic and the social elements of child care, protection and well-being because of the sense of ownership of the local economic growth and prosperity by all the members of the community and the community support mechanism to address social and cultural factors.

Scenario Two: Friendly social environment

Policies and interventions targeting the achievement of a friendly social environment are very important to secure a good care, protection and well-being of children. A friendly social environment for children is an environment where children enjoy a positive relationship with their parents and or caregivers, their teachers and the community at large. Prevention and intervention strategies should address these relationships.

The following factors are important to be addressed in order to maintain a good social environment for children: substance abuse, parenting skills, family stability, child supervision and community support.

The abuse of alcohol and drugs as well as other substance contributes a lot in the incidence of child abuse. Policies to regulate the sale and use of substances are very important to control and regulate the consumption of alcohol and other drugs. Similarly, a community support system should engage with the community on the consequences of substance abuse and engage with the local authority on the regulation of the use of substances.

Good parenting is key to the care, protection and well-being of children. To create a friendly environment for children, parents and caregivers must have and use good parenting skills that portray care, nurturing and love of children. Parenting is not a skill that can be thought to parents and caregivers through formal schooling. A strong, positive and responsible social structure contributes to creating a society where children are considered as treasures.

Positive child supervision is the result of a responsible social structure where there is less if no substance abuse and where parenting skills prevent parents and caregivers to abuse their children. An effective community support system is also a tool that promotes positive child supervision because the child belongs to the community that must be looked at and after.

Family stability depends on the economic stability of the family and in some instances on the relationships

that the family members have. Interventions will depend on the creation of local economic opportunities and the maintenance of good social standards. An effective community support will also enhance the stability of the family and the care and protection of children.

The education system plays a critical role in the prevention of child abuse. Sexual harassment in schools is a known social factor, especially in rural schools, with perpetrators in some cases, being the teachers, principals, administrative and/or general school staff members. Limiting the risk factors for child abuse to happen in schools environments is a task of the school management and school governing bodies that include representative parents. It is also a prerogative that educators should teach children how to keep themselves safe from child abuse. Educators should also report the cases of child abuse as in many instances they are in the first contact with the child victim after the ordeal. Schools are also the centre of the community in many areas especially in rural areas. The interaction between children, parents and educators through school programs can also prevent and limit the incidence of child abuse. Crosson-Tower [2] suggests that schools can organize activities and programs supporting maltreated children, for parents of maltreated parents and school facilities and resources for workshops, public forums and interactions on child abuse and neglect prevention.

The community support system should play the role of the informal education to teach morals, cultural and societal values to children. The community support system should look at how to positively influence social and cultural factors for a good care, protection and well-being of children.

Darkness to Light[5], a national nonprofit organization and initiative located in Charleston, United States aims to empower people to prevent child sexual abuse. Its programs raise awareness of the prevalence and consequences of child sexual abuse by educating adults about the steps they can take to prevent, recognize and react responsibly to the reality of child sexual abuse. The seven steps are a good start for the involvement of adults in preventing child abuse and to facilitate the commitment of the community support system. The seven steps are:

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[5] 7 Steps to Protecting our Children: Introduction: Preventing, Recognizing, and Reacting Responsibly to Child Sexual Abuse - A Guide for Responsible Adults

(www.darkness2light.org/)

Step 1 is about learning the facts to understand the risk factors that should influence decisions regarding children. The TMI facilitates this step by showing the combination of different factors that contribute to the incidence of child abuse.

Step 2 is to minimize and eliminate the opportunity to lower the risk of child abuse thus protecting children by insisting on existing policies and available programs. In the IMT process, this step concerns the decision on what needs to be done for the prevention of and intervention against child abuse.

Step 3 encourages people to talk about child abuse by breaking down the barriers and talking openly about it.

Steps 4 to 6 focus on learning the signs of child abuse, making a plan on where to go, whom to call, and how to react. It is also about offering support and acting on suspicions to save not only one child, but perhaps countless others. A good action will always be facilitated by the knowledge of the legal requirements for reporting:

Step 7 calls for action to get people involved in preventing and acting against child abuse in the community.

Scenario Three: Good culture
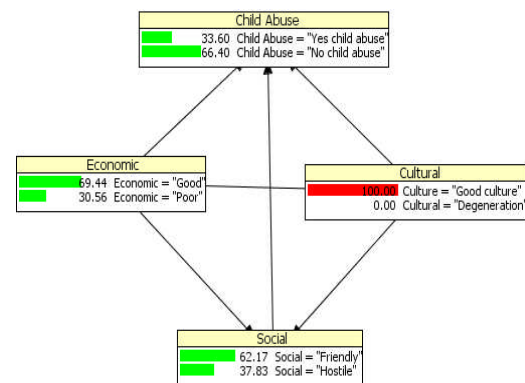
Most of cases of child abuse happen in households where children live. According to Vetter and Silverman [21] among the factors implicated as sources of abuse are mental illness, influence of alcohol, sexual inequalities, stress and compulsive masculinity. Family related interventions form the core in addressing cultural factors that contribute to the incidence of child abuse. A home should be a safe haven for children and should provide safe and protected space where children are not exposed to pornographic material and where the behaviors of parent support such developments. Parents should be the champions for children's rights and not the perpetrators. Where feasible, a home should be

structured in a way that children's rooms are not in very close proximity where sexual activities take place between the mother and the father. Other cultural factors that need to be addressed to achieve good care, protection and well-being of children include: cultural practices, patriarchy, culture of violence, reporting of case, HIV/AIDS myth, gender of the child, age of the child and child rights.

Most of these factors impact on good parenting as well as the community support system. It is therefore important to design programs that teach good cultural mores and discourage bad cultural practices. Dealing with patriarchy and the culture of violence needs a deep cultural revolution that must be based the commitment of not only the local authority but the involvement of the community.

IX. CONCLUSION

This paper emphasizes on policy development and crucial prevention and intervention actions in addressing economic, social and cultural factors contributing to the incidence of child abuse. The paper introduces the Integrated Modeled Theory to show the links and interdependences between economic, social and cultural factors and their equal contribution in the incidence of child abuse.

This paper acknowledges that economic factors have a great influence on the family and/or community thus impacting on social and cultural factors contributing to the incidence of child abuse. However, the links and interdependences between factors from the economic, social and cultural clusters have demonstrated that all clusters contribute equally to the incidence of child abuse.

The Integrated Modeled Theory suggests that, to prevent and intervene against child abuse there is a need of an integrated understanding of the factors that contribute to its incidence. A good economy for instance will positively impact on both the social and cultural factors. A good culture too has a positive impact on the friendly social environment propitious for the care, protection and well-being of children.

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Annexure 1: Summary of the Integrated Modelled Theory

Modeling the Incidence of Child Abuse: Towards the Integrated Modeled Theory

The Integrated Modeled Theory is based on the Bayesian Networks System to facilitate the understanding of the incidence of child abuse, neglect and exploitation in poor households in South Africa. The model argues that poor economic conditions are not exclusive in the causation of child abuse, neglect and exploitation. The model suggests that economic, social and cultural factors must be equally considered in the search for a clear understanding of the incidence of child abuse. The IMT has two objectives: 1. To facilitate the understanding of factors that contribute to the incidence of child abuse, neglect and exploitation 2. To facilitate decision-making on mechanisms for prevention of and intervention against child abuse, neglect and exploitation cases. The model is depicted below:
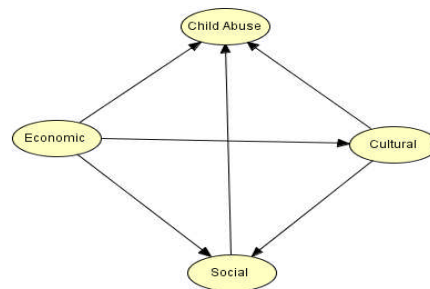
Clusters

Label: Child Abuse (Outcome Attribute)

"Child Abuse" means the ill-treatment or maltreatment of children. A child is defined by the South African Constitution as aged between 0 and 18 years. Child abuse is defined by the United Nations' Convention on the Rights of the Child as: "all forms of physical or mental violence, injury or abuse, neglect or negligent treatment, maltreatment or exploitation, including sexual abuse" UN CRC, Article 19).

States of Child Abuse

Child Abuse = "Yes child abuse"	: The child is victim of any form of crime and violence. This includes the child being abused, neglected and or exploited.
Child Abuse = "No child abuse"	: The child is safe and protected. S/he is well looked at and after, well nurtured, loved and cared for.

Parents
- Cultural
- Social
- Economic

Label: Cultural Theory

The cultural theory on the incidence of child abuse suggests that the way children interact with their parents, care-givers and the society and the traditions and customs observed in the households and the society where children live have an impact in their care, protection and well-being. Cultural factors contributing to the incidence of child abuse include practices such as patriarchy, domestic violence, culture of violence, myth that sleeping with virgin girls cures HIV/AIDS, child-parent relationship and religious as well as other cultural and religious practices such as genital mutilation of girls, circumcision of boys, marrying young children to older men...)

States of Cultural Factors

Culture = "Good culture"	: A good cultural state is when a child lives in and or interacts with a household or society wherein there are less or no negative cultural practices such as patriarchy, domestic violence, religious and other cultural practices and where the child is in a good relationship with the parent or care-giver.

| Cultural = "Degeneration" | : A degeneration cultural state is when the child lives in and or interacts with a family or society where there is prevalence of bad cultural practices such as patriarchy, domestic violence, religious and other cultural beliefs and a bad child-parent relationship. |

Parents

    Economic

Label: Economic Theory

According to the economic theory of crime causation, crime is perpetrated as a source of income, crime is committed for a gain and satisfaction. On child abuse, children are being used as cheap labor, children are being used as drug carriers, children are being used as prostitute to generate income for their parents or care-givers. Economic theory on the incidence of child abuse also means that poor family have no sufficient means to satisfy the basic needs of children resulting in child neglect. The lack of sufficient income leads to a high degree of stress and in some cases the use of substances resulting on the incapacity to take care of children. The economic contributing factors are those that respond to direct material needs of the child. These are the level of the income of the parents or care-givers, their employment, their level of education, the ratio breadwinner-number of children...

States of Economic Factors

| Economic = "Good" | : Good economic condition means the ability of the household to cater for the basic needs of the child. This means that the parent or care-giver has a sufficient income, the parent has an employment and an appropriate level of education... |
| Economic = "Poor" | : A poor economic state means that the parent is not able to satisfy the needs of the child. The parent does not have an income, the parent is unemployed, the parent has no or low income, the parent has no or low level of education, the ratio breadwinner-children is too high... |

Label: Social Theory

The social theory on the incidence abuse says that the social environment of the child contributes to her or his care, protection and well-being. Social factors that contribute to the incidence of child abuse include substance abuse, mobility of the family, impact of HIV/AIDS...

States of Social Factors

| Social = "Friendly" | : A good social state is observed when there is no abuse of substance and no family mobility. There is no impact of HIV/AIDS on the care, protection and well-being of children... |
| Social = "Hostile" | : A hostile social state is when the child lives in a family where substance abuse, family mobility, impact of HIV/AIDS impact negatively on the care, protection and well-being of the child. |

Parents
- Cultural
- Economic