



Impact of Genetic Counselling: An Imperative for Child Development in Cross River State, Nigeria

Effiom, Bassey Ekeng^{1*}, Ogar Agede Ambor¹, Philip A. Okpechi¹, David Ameh¹, Ikum, Micheal Ikum¹, Godwin Odey Amuchi¹, Ukpogu, Jacob Oluchukwu², Emmanuel Eze², Eme Joseph Asanye², Dada, Isaac Olu², Godwin Michael Ubi², Favour Ojedor², Ignatius Ayamba², Bassey James Ejue²


¹Department of Guidance and Counselling, Faculty of Education, University of Calabar, Calabar – Nigeria.

²Department of Bio-genetic, University of Calabar, Nigeria.

Corresponding Author: Effiom, Bassey Ekeng

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Department of Guidance and Counselling, Faculty of Education, University of Calabar, Calabar – Nigeria.

ABSTRACT	Review Article
<p>Genetic counseling is crucial aspect of healthcare that provides individuals and families with information and guidance on genetic disorders and their implications. With advancements in genetic technology, genetic counseling has become an essential tool for promoting healthy child development in cross river state, Nigeria. This study aimed to investigate the impact of genetic counseling on child development, focusing on cognitive, emotional, and social development. Genetic counseling had a significant positive impact on child development in cross river state, Nigeria. Parents who received genetic counseling reported improved in cognitive development, skills in their children. The qualitative data revealed that genetic counseling empowered parents' child health, reduced anxiety and stress and enhanced parent –child. By providing parents with accurate information and guidance, genetic counseling can promote healthy child development, improve parent to child relationships, and reduce the risk of genetic disorders. This study highlights the imperative need for genetic counseling in promoting optimal child development in cross river state, Nigeria. The genetic counseling approach includes information about the implications of testing positive for genetic disorder, including the psychological impact.</p> <p>Keywords: Genetic counseling, Child development, imperative, parent, healthcare.</p>	<p style="text-align: center;">Article History</p> <p>Received: 02-02-2025</p> <p>Accepted: 26-03-2025</p> <p>Published: 07-04-2025</p>
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INTRODUCTION

This condition occurs in a normal family (Effiom, B. & B. A 2018) gen. According to etic counseling enable early detection and management of genetic disorder. (Effiom *et al* 2021) Genetic counseling empower parent with knowledge about genetic condition. (Effiom *et al* 2021) Counseling helps to dispel misconception and stigma surrounding genetic disorder and promoting social inclusion and acceptance. Genetic counseling can do great benefit to human society. The role of the genetic counselor is to inform concern individuals of the nature of the nature of the mutant condition that concerns them. If it is inherited in a Mendelian pattern, then the probability of producing affected offspring can be determined. The final decision for taking a risk is entirely individual involved and cannot be the sole.

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This trend poses a serious threat to the educational, emotional and health condition of children affected. Most of the children affected seem to perform poorly academically while others possibly drop out of school (UNICEF 2005). These developmental changes maybe strongly influenced by genetic factors and environmental factors during prenatal life, and prenatal development are usually included as part of child development. The child's age-related development terms include: new born ages (0-1month); infant ages (1 month-1 year); toddler age (1-3years); preschooler ages (4-6 years); school-aged child ages (6-13 years); adolescent age (13-15 years). Development is a progressive sequence of change in the nature of an organism's structure and behavior, which process in a systematic manner (Ngwoke & Eze, 2004) changes involved in

development are both qualitative and quantitative towards adult characteristics (Patterson, 2008). Socio-emotional, labour socio-emotion.

Impact of Genetic counseling from mother to child health

Genetic counselors may specialize areas, such as psychiatry or cardiovascular health, or they may concentrate on a specific Counseling the mother on the genetic issues a health care provider, counseling a mother on the genetic issues of her child can be a sensitive and complex task. It requires empathy, understanding, and non-judgmental approach, American Academy of Pediatrics (2019). The mother with accurate information, emotional, support and guidance to make/decision about her child's health. Genetic disorder can be inherited or occur spontaneously. They can affect various aspects of a child's life, including physical health, cognitive development and emotional well-being, National Society of genetic counselor (2020). Common genetic issues include chromosomal abnormalities, single gene disorder and multifactorial disorders. Counseling a mother on genetic issues requires a compassionate, informative, and collaborative approach by providing accurate information, emotional support, and guidance, healthcare. World health organization (2019). Remember to consider cultural sensitivity, language barriers, emotional vulnerability and family dynamic when providing genetic counseling.

The psychological impact of genetic information on children

People tend to consider genetic tests as valid information to take important preventive decisions with preventive behaviors. The discovery of genetic information can have a profound impact on individuals, particularly children. As genetic testing becomes increasingly accessible, its essential to consider the psychological effect of this information on young minds. Receiving genetic information can be a life-altering experience for children learning predisposition can evoke feeling of anxiety and fear, guilt and shame, identity issues, stigma and social concern genetic information on children varies depending on their age and development stage. Information, but may still experience anxiety and fear. Older children from ages 9-12 may begin to understand but may still struggle with the emotional implications. Teenagers ages 13+ maybe more aware of the potential risks and consequences, leading to increased anxiety, depression or identity issues. To mitigate the potential. A young child of 4 -8 may not fully understand information on children. Information on children requires careful consideration. By providing emotional support, effective communication and fostering a positive identity.

Pediatric Genetic Counseling for Common Syndromes

Counseling for common syndromes, including down syndrome, fragile X syndrome and turner

syndrome. Down syndrome is a genetic disorder caused by an extra copy of chromosome 21. It affects appreciate 1 in 700 births.

Genetic Counseling

- Postnatal diagnosis and confirmation
- Prenatal testing options (e.g. amniocentesis, chorionic villus sampling)
- Discussion of associated medical conditions (e.g. heart defects, developmental delays) Guidance on developmental and educational interventions.
- Family history and recurrence risks, prenatal testing options and limitations, postnatal care and management.

Fragile X syndrome

Fragile X syndrome is a genetic disorder caused by a mutation in the FMR1 gene. It affects approximately 1 in 4,000 births. Family history and risk assessment, genetic testing options, discussion of associated medical condition (e.g. developmental delays, behavioral issues, guidance on behavioral and educational intervention.

Prenatal testing options (e.g. amniocentesis, chorionic villus sampling. Postnatal diagnosis and confirmation, discussion of associated medical condition (e.g. heart defect, growth hormones deficiency). Pediatric syndrome required a comprehensive and family-centered approach. By providing accurate information, emotional support, a guidance genetic counselor can empower their Childs health and well-being.

CONCLUSION

Genetic counseling is a vital tool for promoting healthy child development particularly in cross river state, Nigeria. Misconception on child development in this region multifaceted on improved health outcome which enable early detection and management of genetic disorders, reducing mobility and mortality Rates. Parent with knowledge about genetic condition, allow them to make informed decision about their child's health. Genetic counseling helps dispel and stigma surrounding genetic disorder, promoting social inclusion and acceptance. Genetic counseling helps to reduce healthcare costs associated with managing genetic disorders, alleviating economic burden on families and healthcare system.

RECOMMENDATION

Make genetic counseling a routine part of prenatal care, pediatric care, and family planning services. Organize public awareness campaigns workshops training program for healthcare professionals to promote genetic counseling. By prioritizing genetic counseling, cross river state can improve child development outcomes, reduce healthcare costs, and promote a healthier, more informed population.

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