## Example of research paper on birth problems and their long term implications

Technology, Development



## **Birth Problems and their Long Term Implications**

In every couple's life – may they be married or living together – having a child is a monumental step in their life together. The child is seen as the anchor that binds the family together, and the joy that brings life to the home. Having a child is also seen as a privilege for many couples as not all families are privileged to be able to have a child due to medical complications. However, there are some instances for those who could have children report birth problems or birth defects in one or two of their children. There are many possibilities on why birth problems occur and prevention can easily be done if mothers undergo regular checkup and medication. Although prevention can be done to stop birth defects or problems, some defects become difficult to trace considering the changing environment and lifestyle the mother is immersed into throughout her pregnancy. The impact of birth defects in the family creates a long-term challenge for the entire family as parents would have work hard in ensuring the child lives as normal as possible; while the child may find it hard to interact with others as their disability may hinder their physical, mental, and social functions. According to the report of Elliott, Segal, Juliano, Mandel and Hearne (2005), each year, there at least 120, 000 babies or one of 33 births are born with birth problems or birth defect that often leads to death if not prevented. While there are research that identifies the most common causes of birth defects, it is most often that doctors would state that they do not know where the defect had come from and how severe it would be for the child. Birth problems would often encompass several abnormalities that would target a child's physical and mental functions. Bale, Stoll and Lucas (2003)

Page 3

identified three common causes of birth problems: genetic birth defects, birth defects of environmental cause, and defects from complex and unknown origins. Genetic birth defects can be attributed to chromosomal disorders or single gene disabilities, which would cause the child to lack or exceed in chromosomes that may influence his development. Chromosomal disorders tend to appear mostly from children whose parents are within advanced maternal age and due to their genetic background. The most common birth defect from chromosomal disorders is Down syndrome: which causes infants to exhibit life-threatening ailments such as cardiac failure and gastrointestinal infections that may lead to mental impairment or death. Despite the presence of advance medical procedures and medicine, children with Down syndrome die due to congenital heart disease, especially in developing countries. In terms of single gene disorders, which are often inherited from their families, exhibit signs of single gene mutations that occur in 1 out of 200 births or from recessive autosomal genes. Currently, there are at least 6, 000 single gene disorders discovered such as cystic fibrosis (impacts secretory glands), sickle cell disease/ anemia (impacts blood vessels), and hereditary hemochromatosis (iron overload). Birth problems or defects can also be caused by environmental origin, which may range from the mother's health by the time she was conceiving to the pollutants around her. Maternal illness and lifestyle can influence the development of the fetus and defects it may have due to the infection. The most notable maternal infection recorded is through the congenital rubella syndrome (CRS) that is caused by the rubella virus that can influence organ development, mental capacity and even physical deformities. Infants with

CRS are reported to have high mortality rates depending on the severity virus' influence upon the gestation stage. In developing countries with rubella epidemics, children with CRS tend to show psychomotor retardation and defenses that is not detected early on by doctors. If the mother has pre-existing conditions such as diabetes and hyperthermia, the high possibility of birth problems would ensue as infants would develop nervous system complications and other birth defects. Mothers with nutrient deficiencies such as folate and iodine is also a cause for concern as it impacts the child from its development within their parents. Birth problems can also be caused by pollutants such as teratogenic pollutants and radiation, which may come from pesticides, solvents, and x-ray radiation. Teratogenic pollutants such as methylmercury causes birth defects attacking the central nervous system and several organs such as the kidney.

Finally, the last cause of birth problems come from complex and unknown origin which may be due to the presence of polygenic genes that may been influenced by environmental factors to contribute to the defect at hand. Bale, Stoll, and Lucas (2003) and Rogers (2013) cited conditions caused by complex and unknown origins such as NTDs, congenital heart disease, cleft lip/palate, talipes, and developmental dysplasia. Neural tube defects or NTDs causes a child to have a brain and a spinal cord system that does not have protective coverings strong enough to stop further complications to develop. Congenital heart disease, on the other hand, is the leading cause of death for infants with birth problems as it may be caused by several factors that may trigger cardiac malformations that may prevent the child from breathing properly and grow if left untreated. Cleft lip or cleft palate, on the other hand, often influences the hard and soft palate of the child, disabling them from eating and speaking properly and may even cause problems like malnutrition. Talipes or clubfoot influences the joints of the child, disabling them from moving their muscles, bones and ligaments. Finally, developmental dysplasia of the hip or DDH is caused by the abnormal position of the femur, which triggers excruciating pain that prevents the child to walk and sometimes, function. These birth defects caused by complex and unknown origin is prominent in developing countries and prove fatal if left untreated .

Upon the detection of a birth problem during pregnancy and after pregnancy, Benson and Haith (2009) stated that the long-term implications it can bring can be drastic to the entire family. For families that had checked if their child has a complication early on in the pregnancy, they would need to decide if they were to continue the pregnancy and consider the possibilities on how they would adjust up with the knowledge and fact that their child has a birth problem. It is most often that children with birth problems tend to cost a lot of money due to medication and hospitalization, as well as require tons of patience considering the severity of the birth problem. Parents also tend to feel detached from others due to their grief of losing the child they have before accepting the child they know they will have upon its birth, often declining aid of comfort from others. Lemacks, Fowles, Mateus and Thomas (2013) added that those who know about the birth problem during pregnancy would also become stressed that it would be difficult for them to feel " normal" given the health of their child and the possibilities that may occur upon its birth, adding to the fear they would have for the child .

The fear, grief and depression upon learning the child's health would continue to worsen unless proper counselling and guidance is given to these parents. Child caring for children with birth defects would impact the parents and caregivers in the long run as they would continue to feel anxiety and helplessness as they could not do anything to improve the child's well-being and would be overwhelmed with the needs required by children with birth problems. Mothers, as noted by Kripke (2012) would develop postpartum depression that may cause them to feel regretful and incapable of being a mother that can sustain her child. This would then lead to bouts of suicidal tendencies that may even cause the death of the child if the mother is not treated as the mother may kill the child on impulse. Mothers with PPD may also isolate themselves from others due to their condition, disabling them from tending to their family and to their friends. PPD patients also feel vulnerable about their capacity to perform their functions as parents, which may also be the cause for them to take up vices and have difficulty conceiving another child . Aside from the psychological implication of the birth problem diagnosis to the parents, it would also impact the family's quality of life in the long-term as families would suffer a gradual financial burden as parents would find issues having a stable job that can sustain the entire family and also the medical finances needed for their child. Siblings may also be influenced by their sibling that has a birth problem as the normal sibling may feel neglected or feel unwanted by their parents, causing them to develop depression and resentment. Finally, parents with children that has birth defects may also find their marriage strained because of the necessities and change in family dynamics to sustain their children. Divorce

is a high probability with families that have children with birth problems as the parents would find themselves having no time for themselves and for others, influencing their capacity to support everyone.

While the long-term implications of birth problems or defects for parents concentrate on social, mental and emotional impacts, the long-term implication it has on the child would stem throughout his life, not just in his physical capacity, but also for his overall development. The child would find himself at a disadvantage as the birth problem he has acquired may present impairments that may range to both mental and physical aspects. In a physical aspect, as stated by Bennett (2004), children with birth defects need to live with physical birth anomalies that may impact their way of life and development. Major anomalies like congenital heart defects or cleft tend to require immediate surgery as it would exhibit chances of infection that may affect the entire body. Having CHD, for example, may further evolve into complications like mental retardation, limb reduction and visual and hearing impairments. Minor anomalies like facial malformations can be treated with cosmetic treatments and would not need immediate treatment. Children would also find it hard to eat and develop their motor skills faster like most newborns given the numerous treatments children with birth problems would need to undergo through throughout their lives. In a behavioral and social aspect, as compared to normal children, children with birth defects have a disadvantage in understanding the world around them and may cause more trouble due to their limitations. Volkmar, Paul, Klin and Cohen (2005) stated that children with birth defects, like ADHD and autism record high cases of withdrawal, avoiding social contact with others

despite the fact they have a high language skill due to intervention. The language disability of these children would also cause them to have temper tantrums and seizures to get the attention of their parents or peers. Children with birth problems also find it hard to adapt to social situations like making friends because they would need to be reassured consistently for attempting to reach out to others. There are also cases wherein children with birth problems exhibit cases of overactivity, inattention and aloofness. In addition to this, the US National Institute of Mental Health (2012) stated that children with birth problems tend to be rejected by peers due to their physical attributes, as well as their mental incapacities, which would often result into the development of aggressive behavior. The lack of focus to detail also causes these children to develop inattentiveness and impulsiveness,

especially for those with ADHD, that may result incapacity to follow instructions .

Finally, children with birth problems showcase poor intellectual incapacities and slow learning capabilities that may influence how they will sustain themselves in the future. Children with birth problems tend to only showcase an IQ of below 70, influencing their capacity to interact with others, take care of themselves, and even performing actively in the society. Like the causes and impact of birth problems, these intellectual disabilities for children with birth problems tend to vary from mild to profound, which would also entail their capacity to live independently and understand the world on their own. It is unknown as to how intellectual activity can be acquired as it is linked to genetic disorders like Down syndrome and even environmental factors such as exposure to chemicals. According to Wernovsky (2007), children with birth

Page 8

defects would find it difficult to comprehend speech and language: both receptive (the child hears and understands the concept) and expressive (children could write the words in proper grammar) languages since they cannot properly discern which words to use to answer the receptive language directed to them. For example, if the child is asked as to what item is being pointed to, they could not answer directly. Motor skills would also be delayed when it comes to children with birth problems since they tend to exhibit overactivity, becoming clumsy in the process as they cannot stop themselves from turning from one activity to the other. Fine motor skills such as drawing, cutting and counting is also a problem the children would have to live in throughout their lives as their attention is unrefined and must be monitored closely often.

There is also the difficulty in developing their visual-motor applications and planning. In the case of visual motor applications, children with birth problems would often find themselves incapable of directly coordinating their thoughts and desired images into actions especially as they grow older without assistance or intervention. Handwriting, for example, is an important visual-motor application as they would need to copy the letter or words seen in the book into a paper. Since some children, like those with CHD and ADHD, tend to exhibit inattentiveness, the act alone would be very frustrating. In the case of executive planning, children with birth problems would find it hard to create an outline of actions or a schedule they would follow for the day . Intellectual disability also disables children from remembering information and instructions, which would be crucial for them to learn skills to solve problems without support and to understand the

consequences of their actions. These children would also live up to the fact that they cannot answers to important questions and ask important information they would need to discuss with their family and friends. As the number of recorded birth defects increase each year, several proposals and methods can be done to aid the child and the parent in improving their situations for the future as well as prevent further birth problems in the future. Lobo (2008) cited that mothers should take extra caution when it comes to what they eat, what they drink and what their condition is throughout their pregnancy. Mothers should strengthen their bodies by increasing folic acid intake and vitamins to aid in the development of the embryo throughout the pregnancy. They must also reduce their sugar intake as high sugar while in the early months of the gestation process may cause gestational diabetes, which may lead to premature birth and high risk of respiratory difficulties. Exposure to teratogens and mutagens coming from alcohol, industrial materials, and even from certain types of medicines must also be limited as it may cause stillbirth, disfiguration, and even major complications only attributed to birth defects. Regular screening must also be practices, as well as regular checkups must also be done to ensure that the child's situation can be improved early.

The situation of children with birth problems can also be improved by introducing programs and modified activities that can cater to both research and learning of those with birth problems. Families may also seek out intervention from psychologists and other specialized bodies to aid them in understanding their situation, as well as support them in helping the child overcome his birth problem. They can also provide individualized support programs and activities to improve the child's self-esteem and learning capacity to allow them to grow independently despite the challenges presented to those born with such disabilities and complications. Communities themselves can also aid families with children with birth problems, addressing problems on information dissemination and helping the parents understand their problem. However, it is also very important that parents provide their children with love and attention for them to become successful .

Children must be treated with love and guidance whether or not they have a birth problem or not as they would need all the help they could get to flourish despite their disabilities. As the years progress, the possibilities of high birth defects in children increases given the changing genetic and environmental structure in which they are immersed with, which is why it is important to understand the possible means to prevent, treat and cope up with such possibility. It is crucial to help families with children with birth problems as they would need all the support they can get to accept their situation and find a sense of normalcy for the entire family, helping the child to grow like a regular child. With the proper support, motivation, and guide, children with birth problems and their families can become successful in life despite the challenge caused by these birth problems.

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