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DEOXYRIBONUCLEIC ACID TEST RESULTS IN BOTH PATERNITY CASES AND ASSISTED REPRODUCTIONS: REBUTTALS OF THE PRESUMPTION OF LEGITIMACY UNDER SECTION 165 OF THE NIGERIAN EVIDENCE ACT, 2011?

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Abstract
Section 165 of the Nigerian Evidence Act, 2011, presumes the legitimacy of a child given birth to during the existence of a valid marriage between the mother of such a child and any man, or within 280 days after the dissolution of any such marriage - if the mother remains unmarried after the dissolution of the marriage. Being a presumption, the legitimacy of such a child may be displaced upon adducing credible evidence to prove that the child is not fathered by the man during the continuance of the marriage or within 280 days immediately after the dissolution of the marriage. This Article therefore, discusses the use of Deoxy Ribonucleic Acid tests results to rebut the presumption of legitimacy in Section 165 of the Evidence Act using paternity cases and In Vitro Fertilization of embryos, particularly where there are medical mistakes or malpractices by clinicians and embryologists.

Keywords: Deoxyribonucleic Acid; Paternity; In Vitro Fertilization; Presumption; Evidence Act

1.0. INTRODUCTION

The Evidence Act, 2011, presumes certain facts in Sections 146 – 168 thereof. The purport, essence and principle of presumption under the Evidence Act, 2011 is elaborately captured by Section 145, thus,

> *"145 (I) Whenever it is provided by this Act that the court may presume a fact, it may either regard such fact as proved unless and until it is disproved, or may call for proof of it.*
> *(2) Whenever it is directed by this Act that the court shall presume a fact, it shall regard such fact as proved unless and until it is disproved.*
>
> *(3) When any fact is declared by this Act to be conclusive proof of another, the court shall, on proof of the one fact, regard the other as proved and shall not allow evidence to be given for the purpose of disproving it."*

Proving or disproving a fact is simply making another person which could be an uninterested third party to believe that such facts exist or do not exist. Section 121 of the Evidence Act, 2011, defines the words 'proved', 'disproved' and 'not proved', as follows:

"*121. A fact is said to be--*

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(a) "proved" when, after considering the matters before it the court either believes it to exist or considers its existence so probable that a prudent man ought in the circumstances of the particular case to act upon the supposition that it does exist:
(b) "disproved' when, after considering the matters before it, the court either believes that it does not exist or considers its non-existence so probable that a prudent man ought, in the circumstances of the particular case to act upon the supposition that it does not exist;
(c) "not proved" when it is neither proved nor disproved."

In effect, what presumption does is to tentatively take away the burden of proof to establish a particular fact. Where a court presumes a fact, such a presumption is in itself an invitation for a contrary fact to disprove same to be tendered by the opposing party. In Section 165 of the Evidence Act, 2011, the law presumes that a child that is born when a husband and wife's marital contract validly subsists or within 280 days after the dissolution of a marriage is a child born in a wedlock. But there are instances where a child may not be fathered by the husband of the mother even though the marriage contract validly subsists and both of them are co-habiting. Section 165 of the Evidence Act, 2011 presumes that such a child is legitimately fathered by the husband of the mother without putting on the man or the woman the burden of proving that the man is the father of the child. Rather, either the man or woman disproving paternity or a third party claiming paternity of the child would be required to adduce credible evidence to rebut the presumption.
Nowadays, there is a surge in paternity related cases where the fatherhood of children given birth to in wedlock are commonly disputed. This is also the case with children conceived through In Vitro Fertilization (IVF) particularly where it is established that the clinicians and embryologists made far reaching mistakes or got involved in malpractices leading to the plant of one's fertilized egg in another woman. The focus of this Article would be first, to attempt a vivid demystification of the concepts, DNA and IVF, then, the evidential impact and or relevance of the employment of deoxyribonucleic acid (DNA) tests in rebutting presumption of legitimacy in both paternity cases and in IVF cases. Summary and recommendations are the last segments of the Article.

2.0. DNA TEST

DNA has been described as the chemical that makes up one's genes and which contain the instructions that make one who one is, from the colour of one's eyes to the size of one's feet.[1] It is a polymeric macromolecule that contains the genetic information

[1] Woollard et al "What is DNA" 27th December, 2021 <https://www.researchgate.net/publication/357352600_What_is_DNA> accessed on 15th October, 2022.

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necessary to define what we are.[2] In the case of Anozia v. Nnani,[3] the court defined DNA as follows:

> "*DNA, that is, "Deoxyribonucleic acid" is a molecule that contains the genetic code of any organism. It is hereditary and has become a euphemism for scientific analysis of genetic constitution, to determine one's roots*."

DNA said to be made up of sugar, phosphate, and bases (the code of life whose order or sequence makes up the information in the DNA) which combine to form a long chain and a shape called a double helix was discovered by a Swiss scientist named Friedrich Miescher while he was investigating white blood cells collected from pus-covered bandages - from those, he extracted a substance he called 'nuclein.' which was later known as nucleic acid, and deoxyribonucleic acid (DNA) today.[4] There are four different bases in DNA, called A, T, C, and G which make up the code for all lives on Earth so that when the two halves of the DNA helix zip together, A always pairs with T, and C with G.[5] Pairs of bases run along the inside of DNA. Sugar and phosphate units make up the outer backbone of DNA.[6]

A complete set of DNA is called genome which are of different sizes in different organisms. Some sections of DNA make up genes and are responsible for all the human characteristics. There are about 20,000 genes in humans and in worms.[7] Woollard et al confirmed that DNA has a strong structure to store information for a long time and as such, the DNA code lives forever after a person is gone in one's family. The widespread use of DNA the world over in both clinical and criminal matters, etc is due to its obvious advantages. As amply put by Victor Walter Weedn et al[8],

> "*... the first widespread use of commercial DNA testing, other than for research, was in forensics, not clinical medicine. Most commentators credit Sir Alec Jeffreys of the University of Leicester with the first published*

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[2] James Wisecarver "The ABCs of DNA" *Molecular Biology* https://watermark.silverchair.com/labmed28-0048.pdf? Accessed 15th August, 2022

[3] (2015) 8 NWLR (Pt. 1461) 241 (P. 256, para. H)

[4] Woollard et al "What is DNA" 27th December, 2021 <https://www.researchgate.net/publication/357352600_What_is_DNA> accessed on 15th October, 2022.

[5] Ibid

[6] Ibid

[7] Ibid

[8] Victor Walter Weedn et al "DNA Testing in the Forensic Laboratory" *Laboratory Medicine* Vol 29, Pages 484 – 489 (1st August, 1998)

<https://www.researchgate.net/publication/296390391_DNA_Testing_in_the_Forensic_Laboratory> accessed on 15th August, 2022

> *description of a forensically useful DNA test. In his 1985 Nature article, Jeffreys coined the term "DNA fingerprint" for restriction fragment length polymorphism (RFLP) analysis of hypervariable "minisatellite" regions of DNA. DNA testing is superior to traditional serologic methods in several ways. Unlike traditional markers, DNA is found in all biologic tissues and fluids. It is far more informative than other markers and is unique to the individual. DNA tests are far more sensitive than traditional serologic tests, and DNA can be amplified where proteins cannot. The DNA chemical sequence, unlike protein conformation, is resistant to environmental degradation. In fact, harsh chemicals such as chloroform and phenol, which destroy other biologic molecules, are routinely used to extract DNA from biologic specimens*."

Victor Walter Weedn et al further identified four unique usefulness of DNA as follows:

> "*• It is the same throughout the body (except in eggs and sperm, which contain only a half complement).*
> *• It is the same throughout life (except for the rare mutation, which represents such a small percentage of the overall DNA that routine DNA testing will not show it).*
> *• It is present in all cells (except mature red blood cells).*
> *• It differs from individual to individual (except for identical twins).*"

The macromolecule in DNA contains information about all aspects of our being, from the colour of our eyes to the isoenzyme forms we use to perform the many biochemical reactions within our cells which is encoded through a genetic alphabet or code.[9] Native DNA that exists in our cells, is arranged in pairs of long, polymeric strands that run in opposite directions composed of individual nucleotides consisting of deoxyribose sugar connected to a purine or pyrimidine ring.[10] James Wisecarver further states that,

> "*Two of these polymeric DNA strands bind together in opposite directions, termed antiparallel. Strands are held together by weak hydrogen bonds between the opposing purine and pyrimidine bases. These relatively weak hydrogen bonds can be broken easily by applying heat, thus causing the two strands to separate. The process of heating and separating the two DNA strands is called denaturing. This process, essentially the melting of the two strands, is one of the fundamental properties exploited during the performance of several different types of DNA tests. Denaturation typically is accomplished by heating a mixture containing the purified DNA to 96°C*

[9] James Wisecarver "The ABCs of DNA" *Molecular Biology* https://watermark.silverchair.com/labmed28-0048.pdf? Accessed 15th August, 2022

[10] Ibid

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> *for several minutes. Alternatively, treating the mixture with a strong alkali solution such as sodium hydroxide also will separate the DNA strands. After the DNA strands have been denatured by heat, the strands will reassemble or reanneal in the proper configuration if the mixture is allowed to cool. If an additional small piece of DNA is added that contains a nucleotide sequence that is complementary to an area along the original DNA strand, however, it is possible that this small, complementary DNA sequence might bind to the large DNA strand instead of to the original large complementary partner."*

How do you begin DNA test and what do you do thereafter? James Wisecarver[11] explained how to begin and what to do thereafter using the traditional method, thus:

> "*Before testing can begin, the DNA contained within the cell's nucleus must be separated from the proteins, lipids, and other cellular constituents. Sources of DNA can include any cell with an intact nucleus, including peripheral blood leukocytes, squamous epithelial cells from the buccal (cheek) mucosa, or tissues from any site in the body. The genetic information in the nucleus is the same whether it was derived from a leukocyte in the peripheral blood, an enterocyte in the colon, or a neuron in the brain. If the genetic sequence of interest is longer than 800 to 1,000 base pairs, fresh tissue or cells are preferred, because the DNA can be removed in its native high-molecular-weight form without significant degradation. Alternatively, if only short sequences are to be studied (ie, 200 to 500 base pairs) using amplification-based protocols, then tissues removed from paraffin tissue blocks often are adequate. To remove the DNA from cells, an extraction buffer is added first that contains some type of detergent to solubilize the cell membranes and a protease (usually proteinase k) to digest cellular and nuclear proteins to expose the DNA. After time is allowed for solubilization and digestion, a mixture of phenol and chloroform is added to solubilize and remove these proteins and lipids. This mixture of organic solvents carries these substances to the bottom of the tube, while the nucleic acids remain in the aqueous phase at the top. This aqueous phase then is removed, and the nucleic acids are precipitated using alcohol and buffe containing either sodium or ammonium acetate. The nucleic acid precipitate then is collected by centrifugation and resuspended in either distilled water or buffer. This isolated DNA now is ready for testing*."

The above method is among other things, time consuming. Other, simpler techniques are the use of salting-out procedures or boiling cells with ion-exchange resins which can be performed within a few minutes and eliminate the need for volatile organic solvents. The disadvantage is that the resulting DNA preparations

[11] James Wisecarver "The ABCs of DNA" *Molecular Biology* https://watermark.silverchair.com/labmed28-0048.pdf? Accessed 15th August, 2022

are not as pure as those obtained using the phenol-chloroform method and may not be adequate for some types of procedures.[12]

There may be need to separate the DNA pieces from other fragments using electrophoresis –

> "*placing the fragmented DNA into a gelatin-like matrix made from agarose or a plastic gel made from acrylamide that is allowed to polymerize in a form that renders it into a thin sheet. The fragmented DNA then is placed in a well or point of origin in this gel matrix, and an electric voltage potential is applied. The DNA fragments, which are negatively charged, migrate toward the positive end of this voltage field while the smaller pieces of DNA travel easily through the gel matrix, while the progressively larger fragments have more difficulty. As a result, when the procedure is complete, the end result is a gel containing a gradient of separated DNA pieces, with the smallest pieces located farthest from the point of origin. As a general rule, agarose is easier to work with and less toxic than acrylamide gels that contain toxic ingredients and require more technical expertise. The advantage of acrylamide gel is its enhanced resolving power. These gels can separate DNA fragments that vary in size by only a few bases. The resolving power of both gel systems can be enhanced by increasing the concentration of the gel*."[13]

3.0. DNA TEST IN PATERNITY CASES

ITA GEORGE MBABA, JCA[14] explains the role of DNA in paternity cases, thus:

> "*DNA test has to do with the use of genetic analysis, scientifically, to determine the paternity of a child, i.e, whose male spermatozoa fertilized the egg of a female, and, I think, this is usually applicable and relevant where there is dispute as to the paternity of a child, or where there is disputing claims or uncertainty as to the paternity of an individual, See the case of Olayinka vs Adeparusi & Anor (2011) LPELR 8691 CA, where this Court, per Denton West JCA held: "... If a party is claiming paternity, it is trite that a Court of law should be allowed to determine same on proof of evidence relating to paternity, which could only be done by referral for a DNA test of the parties involved. After such test the Court has a duty to declare, the actual father of the child in dispute in consonance with the evidence at its disposal. DNA, that is, "Deoxyribonucleic acid" is a molecule that contains the genetic code of any organism. It is hereditary*

[12] Ibid

[13] James Wisecarver "The ABCs of DNA" *Molecular Biology* https://watermark.silverchair.com/labmed28-0048.pdf? Accessed 15th August, 2022

[14] Anozia v. Nnani & Anor (2015) LPELR-24277(CA) (Pp 18 - 20 Paras E - B)

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> *and has become a euphemism for scientific analysis of genetic Constitution, to determine one's roots. I doubt whether that form of proof can be ordered or is necessary to determine the paternity of a 57 years old man, who does not complain about his parenthood, just to please or indulge a self-acclaimed predator, who emerges to destabilize family bonds and posts as a biological father!. I think it is only the 2nd Respondent (a mature adult) that can waive his rights and/or seek to compel his parents (or those laying claim to him) to submit to DNA test to prove his root. Of course, where one is a minor (not mature adult) and his paternity is in issue, the Court can order the conduct of DNA test, in the overall interest of the child, to ascertain where he belongs.*"

If a person claims paternity, a court of law should be allowed to determine same by evidence on paternity by referral for a DNA test of the parties involved. It has been held that DNA test, except where a child is involved, cannot be ordered by the court in defiance of a person's fundamental rights to privacy[15]. After such test, the court has a duty to declare the actual father of the child in dispute in consonance with evidence at its disposal.[16] The difficulty with the decision of the court that a person cannot be compelled to undergo a DNA test is that there are instances where not doing so would be fatal to the justice of the case. For instance, where a party has given notice of the need for the opposing party to submit himself for a DNA test and the opposing party is resisting to do so, it would be injustice to the party requesting that the DNA test be carried out particularly where it is the only or most credible evidence in the circumstances of the case, albeit, in the hands of the opposing party. It is humbly submitted that where the justice of the case requires that a DNA test be conducted, it should be taken that it would be adverse to the case of a party refusing to do so if produced, since the fundamental rights of a person are not in themselves absolute.[17] This position is further supported by the position of the court in the case of Orisa v. State[18] where the court reiterated the overriding importance of DNA tests, thus:

> "*A court should not decide a case on mere conjecture or speculation. Courts of law are courts of facts and law. They decide issues on facts established before them on law. They must avoid speculation. In the instant case, no evidence was led to ascertain whose blood stain was on the wall. A DNA could have easily solved the question as to whether the blood stain was from the appellant's body. To trace the blood stain to the appellant was mere speculation which no court can act upon.*"

[15] Anozia v. Nnani (2015) 8 NWLR (Pt. 1461) 241 (P. 254, paras. F-G)

[16] Olayinka v. Adeparusi (2011) LPELR 2697 P. 256, paras. F-G

[17]

[18] (2018) 11 NWLR (Pt. 1631) 453

On the evidence required to rebut the presumption of legitimacy of a child born during the subsistence of a marriage, the court in **Oduche v. Oduche**[19] stated that such evidence must be strong, clear and conclusive leading to the irresistible conclusion that the child is not the offspring of the husband as such presumption cannot be rebutted by mere balance of probabilities or by circumstances casting doubt. Where the husband and wife have co-habited together and no impotency is proved to the satisfaction of the court, the child or children are conclusively presumed to be legitimate even though the wife is shown to have been, at the same time guilty of infidelity, and even where the parents are living apart, a very strong presumption of legitimacy still arises, and it can only be rebutted by an irresistible proof of non- access to sex.[20] Even under Islamic jurisprudence, where a child is born within the minimum period prescribed and accepted for a normal birth, the presumption of legitimacy subsists as well as the presumption that the husband had sexual intercourse with his wife.[21] Under the Maliki Law, the maximum period within which a child born to a woman is presumed to belong to a previous husband is six months.[22] This presumption may be rebutted if the woman married another husband and the child is born after six months of such marriage.

Spouses in divorce proceedings are allowed to give evidence of non-access to sexual intercourse even if such evidence would tend to bastardize their child.[23] In **Megwalu v. Megwalu,**[24] the court held that the onus of rebutting the presumption of legitimacy rests on the man who is claiming the child and that in determining the weight of evidence, the court should have regard to: (a) the opportunity of access for sexual intercourse between the husband and the wife at the material time; (b) physical condition of the husband at the material time; (c) opportunity of access for sexual intercourse between the wife and the third person;(d) time of birth and time of the sexual acts by each contestant; and (e) sometimes, blood test of the parties may afford a solution. In addition to and over and above the above conditions listed, the use of DNA to establish or disprove legitimacy of a child appears to be the lest stressful and possibly, one of the most reliable. Little wonder the court, speaking on the usefulness of DNA test in **Izontimi v. Izontimi**[25] held as follows:

> "*…It is these characters of evidence that this Court believes and accepts to be the standard of proof that is required on the party who asserted any fact and which it must prove. It is a standard of proof that is a little over preponderance of evidence but little less than proof beyond reasonable doubt. Respective learned counsel had made copious arguments and submissions on the meaning of DNA and its place as a scientific inquiry*

[19] (2006) 5 NWLR (Pt. 972) 102
[20] Ibid
[21] Rabiu v. Amadu (2013) 1 NWLR (Pt. 1337) 36 SC
[22] Mintar v. Kori (1989) 1 NWLR (Pt. 100) 718

[23] Otti v. Otti (1992) 7 NWLR (Pt. 252) 187
[24] (1994) 7 NWLR (Pt. 359) 718
[25] (2017) LPELR-45004(CA)

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> *that could lead to certain factual conclusions or conclusions of fact, and I believe proof of facts also. Learned counsel must also be taken to have been both conceded that it is a category of expert evidence that is fully within the contemplation of the Evidence Act…"*

As important and almost irreplaceable as DNA test are in paternity cases, the court has repeatedly held that it cannot impose DNA test on parties prior to giving its decision as such imposition in the past was held to be perverse.[26] As I stated above, this position of the court may not, respectfully, be the best for all intents and purposes especially where one of the parties is desirous of doing so and the party who knows that the test would be unfavourable to him or her is declining to do so and where not carrying out the test will affect the justice of the case. The facts of the case in **Idahosa v. Idahosa**[27] is one of the instances where, it is my respective view that the court, though it is not its duty to subject parties to a DNA test, would have done so for the justice of the case. In that case, the facts revealed that after the death and burial of Pa Egharevba Idahosa, the Respondent took possession of the late father's Igiogbe at No. 15 Ogbelaka Street, Benin City. The Appellant who is the Respondent's younger brother contended that the Respondent was the biological son of one Pa Osayande who testified as DW2. The Appellant contended that shortly before the death of their mother, Madam Onaiwu, their mother confessed to himself and the Respondent that at the time wherein she was separated from late Pa Egharevba Idahosa, she took in for Pa Osayande and gave birth to the Respondent and PW2, Mrs. Comfort Ekwebelem. The matter was reported to the Oba's Palace for resolution but before the Oba could come out with a final verdict, the Respondent commenced this action, claiming inter alia: "a declaration that he is his late father's eldest son." Under cross-examination at the trial Court, the Respondent (as Plaintiff) debunked the Appellant's story that late Madam Onaiwu confessed to both of them before she died. It is his testimony that the Appellant was not even in Benin on the date the alleged confession was made. The court wondered why on the day the Appellant heard such heavy confession from late Madam Onaiwu, he did not raise alarm to invite witnesses. It was his word against that of the Respondent and the Court did not successfully pick and choose which testimony to believe and held the evidence to be hearsay evidence which no Court could safely rely on it. The court accepted the presumption on Section 165 of the Evidence Act, thus:

> "*I have stated elsewhere in this judgment that under Section 165 of the Evidence Act, any person born during the continuance of a valid marriage between his mother and any man, or within 280 days after dissolution of the marriage, the mother remaining unmarried, shall be presumed to be a child of the marriage. In the instant case, the parent to the respondent were*

[26] Braimoh & Ors v. Braimoh & Ors (2021) LPELR-54586(CA)

[27] (2020) LPELR-52018(SC) Per John Inyang Okoro, JSC (Pp 22 - 25 Paras D - D)

> *married until death in 1977 and 1997 respectively. There is no evidence of dissolution of their marriage before death. I cannot therefore find any evidence to dislodge the respondent's paternity under our law. May I also state that our world today has shifted significantly to science and scientific analogies. I wonder why parties in this appeal never considered subjecting themselves to a medical test, to wit: a DNA test, to ascertain the paternity of parties rather they resorted to litigation which has lasted this length of time. For all I have said above, I hold that the Court below was right to hold that the presumption of legitimacy inures to the benefit of the respondent."*

As stated above, this is one of the instances that where it would have been justifiable for the court to order parties to subject themselves for a DNA test. The court would not be aiding the parties or assisting parties to do their case if it subjected them to carry out a DNA test. This is particularly because, in the law is well settled that,

> "*whenever it is provided by this Act that the court may presume a fact, it may either regard such fact as proved unless and until it is disproved, or may call for proof of it."*[28]

The court in doing justice to paternity cases should subject the parties to DNA test. Doing so will make its decision more credible by all ramifications.

4.0. DNA TESTS IN IVF CASES

Abid M et al [29] explains the meaning of IVF as,

> "*…a technique to solve the female infertility in the woman which is due to the suffering of fallopian tube or there is difficulty in fertilisation by in vivo process. IVF is a major treatment in which an egg is fertilised by sperm outside the body. This method is used when the other fertility treatments are unsuccessful. In this process the woman's ovulation process is checked and the ova or egg is removed from the woman`s ovary and then letting sperm fertilise them in a fluid medium in a laboratory. Then the fertilised egg that is known as zygote is relocated to the woman`s uterus. Louise Brown was born as a result of natural cycle IVF*."

Abid M et al went ahead to also outline the IVF procedure to be in five steps:

> "*1. Super ovulation: The woman is given fertility medications in order to produce more than one egg per month as she usually does.*
> *2. Egg Retrieval: Collection of eggs from follicle.*

[28] Section 145, Evidence Act

[29] Abid M et al "In Vitro Fertilization" School of Pharmaceutical Sciences IFTM University, Lodhipur Rajput, Moradabad, U.P., India <https://www.researchgate.net/publication/269847369_IN_VITRO_FERTILIZATION> accessed on 15th October, 2022.

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> *3. Insemination: The sperm is mixed with the egg in a propitious environment or they inject the sperm directly into the egg.*
> *4. Embryo formation: After the egg is fertilized it becomes an embryo. After another 5 days the embryo's cells start dividing.*
> *5. Transferring the embryo in the woman's uterus: A tube which contains the embryo is inserted in the vagina, through cervix and into the uterus*."

Another author, **Faye Iketubosin** [30] classified the stages involved IVF as follows:

> *"• Ovarian stimulation*
> *• Follicular aspiration/egg collection*
> *• Oocyte classification*
> *• Sperm preparation*
> *• Oocyte insemination*
> *• Embryo culture*
> *• Embryo transfer*."

IVF is not without its own attendant risks. One of such risks is ectopic pregnancy which is said to occur,

> "*when the substantial embryo implants somewhere outside the woman's womb. When the embryo grows outside the woman`s womb the life threatening situation may occur for both mother and foetus. According to National Health Service data, 95 per cent of ectopic pregnancies results due to the embryo remaining in the fallopian tube - even though ectopic pregnancy can occur in the cervix (the neck of the womb), the ovary and the abdominal cavity. Due to this, affected organ will rupture and cause severe haemorrhage generally, an embryo cannot survive an ectopic pregnancy and therefore treatment always requires the removal of the embryo*."[31]

Other risks associated IVF are low birth weight, premature birth, minor problems with brain progress, multiple pregnancies with attendant medical complications, high blood pressure, haemorrhage, retardation in infants and premature birth in twins.[32] Aside the above risks, in recent cases, there have been instances where couples had to approach

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[30] **Faye Iketubosin** "In vitro fertilization embryo transfer processes and pathway: A review from practice perspective" African journal of Law Online

<https://www.ajol.info/index.php/tjog/article/view/183471> accessed on 15th October, 2022

[31] Abid M et al "In Vitro Fertilization" *Journal of Biological & Scientific Opinion* Pages 398 -402 (2013/12/26)
<https://www.researchgate.net/publication/269847369_IN_VITRO_FERTILIZATION> accessed on 15th October, 2022.

[32] Ibid

the law courts due to medical malpractices and or mistakes by clinicians/embryologists. One of such cases is reported on July 7, 2019 by the CNN[33] whereby a couple, who are Asians and clients to CHA Fertility Clinic gave birth to two non-Asian babies, and each child was a genetic match to a different couple, also clients at CHA Fertility Clinic in Los Angeles. The couple spent more than $100,000 for the IVF services, including facility and doctors' fees, specialist services, medication, lab expenses, travel costs, etc. In early 2018, the company collected sperm and eggs from them and then formed five euploid embryos, four of which were females. After some attempts, there was pregnancy for twins in September 2018. A sonogram showed that the twins were both male which brought confusion to the couple since there was only one male euploid embryo, which was not transferred to the woman. The fertility clinic maintained that the sonograph results were not accurate and was not a definitive test. Twin boys were given birth to and neither baby was of Asian descent.

DNA testing found that the babies were not related to the couple, nor were they related to each other but each baby was genetically related to a couple that had also gone for treatment with CHA Fertility. The couple did not know what happened to their two embryos that were supposed to be transferred to the woman. In the end, the Asian couple was legally forced to give up the babies to their true genetic parents.

This case study under the Nigerian law would be another perfect case for presumption of legitimacy under Section 165 of the Evidence Act, 2011 without the aid of DNA test. Who could imagine that another couple's fertilized embryo was implanted in another woman? Even at that, the twin boys were given birth to within the period over which their marriage validly subsisted. While it is not in dispute that there could be other ways of establishing that the children were not that of the Asian couple, the love and affection and other things associated with gestation period would have made it very difficult to disprove that the Asian couple were not the legitimate parents of the children without the aid of DNA test. The introduction of the DNA test in such cases as this, with due respect, was unimpeachable and the courts could not have done otherwise even if any or all the parties were unwilling to submit themselves for DNA and more particularly, because children are involved.

5.0. CONCLUSION AND RECOMMENDATIONS

The use and place of DNA tests in paternity cases have come to stay in Nigeria and other countries of the world. In paternity cases involving the legitimacy of children in wedlock, DNA it is submitted, is one of the best ways to rebut the presumption of legitimacy. Other methods include the establishment of the opportunity of access for sexual intercourse between the husband and the wife at the material time; or that there was an opportunity of access for sexual intercourse between the wife and a third person; the

[33]https://edition.cnn.com/2019/07/07/us/ivf-baby-wrong-lawsuit/index.html

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time of the birth of the child and time of the sexual acts may also be established; and sometimes, blood test of the parties may afford a solution. None of this, it is submitted further, could be as accurate or exact as a DNA test. Same thing applies in IVF cases particularly where there is doubt as to whose embryo was implanted in a woman due to clinician's mistakes or medical malpractices.

In all cases, the court has a duty to do justice as the circumstances of the case demands. The Evidence Act, 2011 in Section 165 empowers the court in a bid to do justice between the parties to demand that a fact be proved when such a fact is not proved. In exercising this power, it is humbly submitted that where the only credible and or justiciable means of proving or disproving paternity is by way of a DNA test in an attempt to rebut the presumption of legitimacy, it will not be out of place and will not amount to descending into the arena of justice for the court to demand that parties go for a DNA test if the justice of the case so demands, or if either of the parties requests for it. Holding otherwise in such cases, it is submitted once more, would be antithetical to the justice of the case.

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