Volume : 3 | Issue : 2 | Feb 2014 • ISSN No 2277 - 8160

Research Paper Social Science

Genetic Counselling and Society

LATHA. S M. Asst.professor, Govt. First Grade College, Davangere

ABSTRACT

Genetic is the most challenging and dynamic sector now a days. The scientific and technological developments occurring in this field warranted updating of human genetics. Today the genetics creates revolution and miracles. Thirty years ago most genetic counseling was undertaken by non-medically trained geneticists for the simple reason that very few physicians had any knowledge of or interest in genetics. But now, entirely is different. In this paper will give us idea about gene, genetic counseling and counselors, how it helps the human being to get good health. Even this article will deal with brief history of genetic counseling, family tree, need of genetic counseling in India…

KEYWORDS :

Introduction

Man's most precious treasure is his genetic heritage which guides the health and proper development of future generations. Undoubtedly one of the most significant subdivisions of the medical science in the present day world is genetics because of its practical value in human welfare. The term genetics was coined by BATESON in 1906 it has been derived from the Greek word gene (gene- to become). Genes is a hereditary unit consisting of a sequence of DNA that occupies a specific location on a chromosome and determines a particular characteristic in an organism.

Any couple who have had a child with a serious abnormality or individuals who have a family history of serious disorder, these couples and individuals need accurate information regarding the risk of having another affected children and risk of developing disease or transmit it respectively. Genetic counseling is a process of communication and education which addresses concerns relating to the development or transmission of hereditary disorder.

History of Genetic counseling

Most people working in the field of medicine are familiar with the term 'genetic counseling' genetic counseling is the process by which patients or relatives at risk of a disorder that may be hereditary are advised of the consequences of the disorder, the probability of developing and transmitting it and of the ways in which it's may be prevented or ameliorated. The study of human Genetics was already well developed by the early decades of the present century. Charles Davenport of the Eugenics records office in New York stete began to give genetic advice as early as 1910. However, genetic counseling did not emerge as a recognized procedure until much later. During the 1920s and 1930s the development of eugenic policies in both totalitarian Germany and in North America, accompanied by discriminatory laws prohibiting marriage of those with particular diseases, brought the subject of eugenics into disrepute. In the time of Second World War that first genetic counseling clinics were opened in America. In Michigon(1940) and Minnesota(1941). In the UK , the hospital for sick children in Great Ormond Street. London developed the first such clinic in 1946.(Peter S Harper-1988).

Genetic counseling and Family Tree.

Collecting genetic information is the first and most important step in genetic counseling and is best achieved by drawing up a family tree or pedigree. The use of clear and consistent symbols allows genetic information to be set out much more clearly than does a long list of relatives. Drawing a satisfactory pedigree is not difficult although it is remarkable how rarely those clinicians without an interest in genetics will attempt the process! A clearly drawn pedigree has a certain aesthetic appeal, but its chief values are to provide an unambiguous and permanent record of the genetic information in a particular family. This includes both present and relevant past history. Family history includes sibs and other relatives also. Kindly note it there is any other person in the family with a similar problem. This tree helps to identified to genetic disorders and helpful in the situation of treatment.

Genetic counselors

Genetic counselors are professionals who have completed master's program in medical genetics and counseling skills. Genetic counselors can help identity and interpret the risks of an inherited disorder. Explains inheritance parents, suggest testing and lay out possible scenarios.Genetic counsellors can share the experiences they've had with other families in your situation. But they will not suggest a particular course of action. A good genetic counsellor understands that what is right for one family may not be right for another.

Genetic counsellors can, however, refer you to specialists for further help. For instance, many babies with Down syndrome are born with heart defects. Your counsellor might encourage you to meet with a cardiologist to discuss heart surgery, and a neonatologist to discuss the care of a post-operative new-born. Genetic counsellors can also refer you to social workers, support groups, or mental health professionals to help you adjust to and prepare for your complex new reality.

Who should get genetic counselling

Anyone who has unanswered questions about origins of diseases or traits in the family should consider genetic counselling. People who may find it valuable include:

- Those who have, or are concerned that they might have, an inherited disorder or birth defect.
- Women who are pregnant or planning to be after age 35
- Couples who already have a child with intellectual disabilities, an inherited disorder or a birth defect.
- Couples whose infant has a genetic disease diagnosed by routine newborn screening
- Women who have had babies who died in infancy or three or more miscarriages
- People concerned that their jobs, lifestyles or medical history may pose a risk to outcome of pregnancy. Common causes of concern include exposure to radiation, medications, illegal drugs chemicals or infections.
- Couples who would like testing or more information about genetic conditions that occur frequently in their ethnic group.
- Couples who are first cousins or other close blood relatives.
- Pregnant women whose ultrasound examinations or other prenatal test indicate that their pregnancy may be at increased risk for certain complications or birth defects.

Genetic counseling and Indian society:

Indian society is mainly dependent on traditional caste and family system. Even today, main reason for genetic disorder in our society is because of consanguineous marriages. So, importance of genetic counseling for family and pregnant women plays a vital role. While preparing family tree, the counselor will take family past history about the genetic disorder of the client to give necessary treatment and to help mothers to rear healthy baby. In India, even now people believe that, the main cause of infant mortality is because of spiritual, cultural and traditional beliefs. The main role of the counselor is to educate such people and takeout false believes from their mind. Secondly to the

tell fact that, though some of the genetic disorder cannot be detected by ultrasound but it is possible to get healthy baby through genetic counseling , and diagnostically evaluation like CVS , Gene Mutation and Chromosomal study

Genetic counseling is perhaps the most important part of genetics where genetic knowledge is applied to the improvement of human health.

REFERENCES

Dr.V.Kapur and Dr.R.K.Suri "Basic Human Genetics "J P Publications New Delhi | S.D. Gangane "Human Genetics" Elsevier Publication 2008 | Peter S Harper "Practical Genetic Counseling" Butterworth and co .publishers ltd 1988 | www.marchofdimes.com