

GENETIC COUNSELLING



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INTRODUCTION: “**Genetic counseling**” is a process of advising individuals and families affected by or at risk of genetic disorders to help them understand and adapt to the medical, psychological and familial implications of genetic contributions to disease. The process integrates interpretation of family and medical histories to assess the chances of disease occurrence or recurrence. A wide knowledge of education about inheritance, testing, management, prevention and resources should be provided. Regular counseling to promote informed choices and adaptation to the risk or condition of developing disease should be given to couples who are at risk to giving birth to a child with congenital defect.

HISTORY OF GENETIC COUNSELING: The practice of inquiring people about inherited traits began around the turn of 20th century, shortly after William Bateson suggested that the new medical and biological study of heredity called “Genetics”. In 1930^s the concept of genetic counseling came into picture, but the term genetic counseling was coined by “**Sheldon Clark Reed**” in 1947 when he published the book “**Counseling in Medical Genetics**” in 1955. In period of 1960^s genetic counseling became medicalized and in 1979, the National Society of Genetic Counselors (NSGC) was found.

AIMS OF GENETIC COUNSELING: The growth counseling aims to provide the family with complete and accurate information about genetic disorders.

- (1) Promoting informed decisions by involved family members.
- (2) Clarifying the family’s options available treatment and prognosis.
- (3) Explaining alternatives to reduce the risk of genetic disorders.
- (4) Decreasing the incidence of genetic disorders.
- (5) Reducing the impact of the disorders.

FUNCTIONS OF GENETIC COUNSELING: There are specific reasons and functions of genetic counseling they are-

- (1) Genetic counseling provides information about genetic background of an individual and explains parents about their child having a disease.
- (2) Main function of genetic counseling is to provide available solution which can be to reduce the impact of genetic disorder.
- (3) It helps person to understand and cope with his condition.
- (4) Genetic counseling functions to test the risk of recurrence.

INDICATIONS FOR GENETIC COUNSELING: There are certain conditions which leads to need genetic counseling-

- (1) Hereditary disease in a patient or family.
- (2) Birth defects (such as turner, Down's or Klinifilter syndrome).
- (3) Mental Retardation.
- (4) Advanced maternal age.
- (5) Early onset of cancer in family
- (6) Miscarriages
- (7) Malformations.
- (8) Tendency to develop a neurological condition.

INFORMATION CONVEYED IN GENETIC COUNSELLING: The information conveyed in genetic counseling is very important for reducing the defects in fetus. The information conveyed by genetic counseling is following-

- (1) Magnitude of risk of occurrence or recurrence.
- (2) Impact of disease on patient and family.
- (3) Modification of disease impact or risk.
- (4) Anticipated future development.

COMPONENTS OF THE PROCESS OF GENETIC COUNSELING PROCESS: The components that are required for carrying out the process of genetic counseling process-

- (1) Information gathering.

- (2) Proper diagnostic techniques.
- (3) Risk Assessment and risk management technique.
- (4) Providing information about disease and its possible treatment.
- (5) Psychological assessment and counseling of the couple
- (6) Preparing mind of the couple involved, to make a valid decision.
- (7) Provide support to the client.

STEPS OF GENETIC COUNSELING: There are three steps required for genetic counseling, they include-

- (1) **Diagnosis:** The first step required for a proper genetic counseling is the correct diagnosis of disease. The medical diagnostic persons should analyze the genetic background of persons involved and should then assess the suspected disease that child can develop.
- (2) **Prognosis:** Prognosis means an opinion, based on medical experiences of the likely development of a disease or an illness. It refers to a judgment about how something is likely to develop in future. It is duty of medical diagnostic persons to explain the couple in question about the chances of their child about developing a disease.
- (3) **Treatment:** It is duty of medical diagnostic persons to provide path of correct treatment process to the couple. They should guide a couple about all the possible treatment pathways to the couple and should let them know about the survival chances of their child.

ROLE OF GENETIC COUNSELORS IN GENETIC COUNSELLING: A “**Genetic counselor**” is a person who provides information about the chances of child developing a disease. It is the effective counseling skill of the counselor along with his/her ability to empathically connect with parents of the child which makes a genetic counselor in demand. A good genetic councilor should have following skills-

- (1) Good genetic counselor make their client best interest, their foremost priority and are keenly attuned to complex professional and ethical challenges.
- (2) They use non-directive counseling method to provide the best service to those who need them.
- (3) A good counselor should develop mutual relationship with the client to ease him from his/her psychological stress to promote a sense of control and help to find a solution to specific problems.
- (4) A counselor should help to increase client's strength, values and needs and should provide an individualization and flexible. A common counseling style applicable to both should be adopted.
- (5) The counselor tends to give advice, make decision, be corrective, persuasive, influencing, directing and controlling.
- (6) The counselor communicates, enables, explores, encourages, informs, offers choices, discusses, promote autonomy, is empathic, non-judgemental and respectful of the client.
- (7) A counselor should play an important role in taking follow-up, clarifying information, providing continuous support to grieving process as appropriate.
- (8) A counselor should help the couple to abort the child if there is no other way and techniques like artificial insemination, surrogation and adoption should be encouraged.
- (9) It is duty of genetic counselor that before genetic counseling he should have detailed family history of the couple, accurate diagnosis, should understand medical accept of the couple,

- (10) A counselor should understand the concept of health/disease/ healthcare in the appropriate cultures.

ETHICS OF GENETIC COUNSELING: There are some ethics on which genetic counseling relies-

- (1) Counselor can only explain, but the right to make decision lies with the couple and that right should be respected.
- (2) A counselor should keep privacy of individual and his family.
- (3) A counselor should maintain communication between counselor and his client.

