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The Genomic Era and Serious Mental Illness:
A Potential Application for Psychiatric Genetic Counseling
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Genetic Counseling for Psychiatric Disorders

Present day genetic counseling is an important clinical service that is routinely offered for prenatal testing and diagnosis to families that are affected by genetic disorders. Genetic counseling is offered mostly for Mendelian conditions and it is not routinely offered to individuals with serious mental illnesses and their families. By means of an overview of who should be referred and how the process and content for psychiatric genetic counseling should be, the authors of the article discuss the usefulness of genetic counseling as an intervention for this population.

The components of a genetic counseling session fall into two broad categories: information gathering (identifying the need for information, disease construct and family history) and information provision (content) and support. The information provision and support covers the etiology, recurrence risks and decision making support. In genetic counseling the counselor discusses genetic and environmental contributors to disease pathogenesis, helps individuals explore conceptions, fears, and adaptive strategies, and provides nondirective support for decision making.

Psychiatric genetic counseling can be offered to a diverse group of individuals. Affected individuals and their partners who are planning to have children are the most obvious potential candidates for psychiatric genetic counseling. Counseling should address the chances of the child becoming affected; the effects of medication on the developing fetus; the effects of pregnancy on the affected parent's mental health; the risks to the fetus, and the importance of social support networks and emergency planning for crises. Affected individuals who maintain risk behaviors also benefit from genetic counseling. Exploration of reasons for non-adherence and for substance abuse can expose underlying fatalistic beliefs about the illness. Siblings have a unique bond within a family, which is long lasting and strengthened by a shared genetic, cultural, and social heritage. They are arguably the family members who receive the least support when a family is touched by serious mental illness. Siblings and parents often experience guilt feelings for having been unable to prevent the illness and may experience 'survivor guilt'. Guilt is compounded by a lack of other available explanations for the development of the illness and can lead to conflict and blame and even to disintegration of the family.

Expected outcomes of psychiatric genetic counseling include reduction in fear, stigma, and guilt associated with a psychiatric diagnosis; improvement in adherence to prescribed medications; decline in risk behaviors, and reduction in misconceptions about the illness. Due to the complexity of genetics and psychiatric disorders, the authors endorse a multidisciplinary approach in which a psychiatrist and genetic counselor collaborate to provide comprehensive psychiatric genetic counseling.

Comments

Few studies have been conducted to investigate the need for psychiatric genetic counseling. One study showed that among 31 individuals with bipolar disorder, more than 75% reported that they would like to be referred for genetic counseling [1], while another study of 48 family members of individuals with schizophrenia showed that more than 70% would have liked to have been referred [2]. Psychiatric genetic counseling can be used to exert a positive influence on help-seeking behavior and other health-enhancing behaviors, as well as on stigma and guilt, even if advances in genetic research do not lead to targeted clinical vulnerability testing or genotype-specific interventions.

Despite the applicability of genetic counseling for mental illnesses, and the apparent demand, relatively few individuals currently receive this service. The significant genetic contribution to mental illnesses is underrecognized in the clinical community and the relevance of genetic counseling is not appreciated. Also a degree of uncertainty exists among psychiatrists and genetic counselors regarding who may be best placed to provide the service or how a collaborative approach might be adopted. However, continuing advances in genetic research on major mental illness are likely to translate into increased public awareness, leading to a greater interest in psychiatric genetic counseling. A collaboration between psychiatrists and genetic counselors would be an opportunity for the psychiatric healthcare to be a leader in knowledge translation from research to clinical practice and in promoting the use of genetic counseling for individuals affected by complex disorders.

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References

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