

Accuracy, reliability and usefulness of genetic testing

Sociology



Accuracy, Reliability and Usefulness of Genetic Testing Genetic testing has grown significantly over the last couple of decades mainly owing to its perceived reliability. Genetic test results are largely considered undisputable and in most cases their introduction into what is seen like an issue permitting several different ways for a matter to be interpreted differently, the matter is silenced once and for all. This paper evaluates the belief of insiders into this perception that the results are beyond reproach.

Regulating Genetic Tests for Accuracy

Casey (1999) defines a genome as a complete set of coded instructions for making and maintaining an organism. It is made up of the chemical DNA. Like any other human conducted analysis, genetic tests too are prone to errors arising from several possible sources. This therefore puts to question the high levels of trust that has been bestowed findings obtained in this field of science. The HGPI (2010) clearly states the limitations accompanying genetic tests.

The tests give only a probability for developing the disorder. One of the most serious limitations of these susceptibility tests is the difficulty in interpreting a positive result because some people who carry a disease-associated mutation never develop the disease. Scientists believe that these mutations may work together with other, unknown mutations or with environmental factors to cause disease (HGPI 2010).

The authors further open another front meant to make the individuals that the tests are also prone to laboratory errors. Sample misidentification, contamination of the chemicals used for testing, and other unlisted factors are attributed to the experimental errors associated with genetic testing in

the laboratories (HGPI 2010).

Furthermore, several complexities accompany interpretation of the analysis results, further compounding the problem. Some medics feel that with time the field will have grown in diversity to such sophistication that it will be able to offer competing options for unique kind of tests and solutions to susceptibility to many diseases. Until these issues are resolved or technology soars to such heights, it will be impossible to certainly determine the effective efficiency of the tests.

Fetal genetic testing is credited for being carried out under some of the most convincing environments in terms of sterility. For this reason, it is touted as being among the most reliable tests under genetic testing. However, it is estimated that a sure treatment of genetic conditions identified with the parents could offer a better solution to fetal genetic testing.

A great stride towards evaluation and regulation of genetic tests for accuracy, reliability, and utility will be achieved through intensive funding of research projects by the government. The importance of this regulation is that there still remains a wide gap between the government's control of research and its control of ethical matters pertaining to ethical clearance. Obvious is the high caution with which the results of any genetic tests are handled at the government level. However, if the government invests in this field to the extent that there can arise competing opinions on the subject matter, the public for which it is out to protect will be lesser exposed manipulation by experts.

The existing contrast to this endeavor is that there is still very little knowledge among the public regarding factual developments, and this field

remains mysterious in terms of operation to many.

The ambitious plan to regulate genetics for utility is a difficult one since scientists are solely responsible for planning the next course of study for which they feel genetic testing can be helpful. However, activities outside the research arena could be easily controlled through collaboration with other stakeholders.

Reference list

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