

The social and ethical implications related to genomic and genetic medicine

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The paper "The Social and Ethical Implications Related to Genomic and Genetic Medicine" is a worthy example of a term paper on medical science. Despite major advancement in genetic science especially notable creation of "right drug" that replaces "one size fits everyone", the shift into precision medicine complicates ethical and social drawbacks more than before. Various studies have documented that modern bioethics in the current century is facing encounters on analysis, individualism, and literature. The social and ethical implications related to genomic and genetic medicine have happened ever since the onset of human genetic examination (Brothers & Rothstein, 2015, p. 45). While some of these implications are beneficial to people needing health service, personalized medicine is facing several challenges such as ethical types, especially at the pre-implementation stage. In my opinion personalized medicine can be beneficial especially when thorough preventive measures, improved diagnostic valuation, and lessening of adverse impacts of medication is guaranteed. In this regard, there is a great need to focus on issues surrounding personalized medicine before it moves into clinical settings. The major benefit of precision medicine is that it would improve the quality of healthcare through the production of effective and considerable safer drugs that are affordable and within a public trust. Research and development in precision medicine especially through pharmacogenetics studies have played a pivotal role as the basis for this major transition from present medicine to personalized medicine. Although the issue of pharmacogenetics is highly criticized, it is the only human hope to reduce the incidence of severe adverse medical effects. Genetic tests help to balance individuals benefit to those of the society because the results of

the test are the utmost indication for personalized medicine implications.

Choosing partners of patients by pharmacogenetics for clinical trials assists in performing smaller medical experiments, faster and at low costs. Though Pharmacogenetics is a promising mechanism for lessening severe drug effects, developing personalized medicine requires a continued number of genetics studies.

Precision medicine will also be beneficial because through pharmacogenetics information there will be fewer research risks to individual receiving medical services. Although the Increased amount of health information is subject to drawbacks such as high privacy, discrimination and high liability levels to patients, such information is central to many of the diagnostic, therapeutic application and in the prediction of major genetic disorders (Salari & Larijani, 2016, p. 5). The physician-patient relationship is also strengthened by personalized medicine because more attention is given to individual patients during diagnosis and treatment of common genetic disorders.

Despite the aforementioned benefits of social and ethical issues relating to precision medicine, several drawbacks challenge such a major advancement in genetics sciences. Even with the increased amount of health information associated with personalized drugs, there is also a high likelihood that such information is also in possession of private individuals and third parties.

Quality of medical care can be comprised if peoples' health information is disclosed to unnecessary individuals without the permission of the patient.

Privacy risks come to existence because of the development of electronic networks which allow sensitive health records distributed to multiple parties.

Another drawback is genetic discrimination which takes forms such as

selecting a subset of populace based on the ethnic and racial difference, insurers by biobanks and genetic intervention as gene therapy. Precision medicine could intensify the issue by considering slight genetic discrepancies which may have some biological and economic effect (Callier et al., 2016, p. 700). However, there is considerable evidence that shows that the drawbacks like genetic discrimination through race and ethnicity could be better proxies for pharmacogenetics science in boosting effectiveness and reducing side effects. Because personalized medicine can be used in ethical and social decisions, a framework addressing the various challenges through considering values and further study design is recommended.