

The need of genetic counselling in third world Muslim countries

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Dear Editor, I am writing to highlight the profound importance of extending access to genetic counselling services in third-world Muslim countries. These regions face a significant burden of congenital anomalies and inherited disorders, largely attributed to the prevalence of consanguineous marriages.

Genetic counselling serves as a vital tool in disease prevention, empowering individuals to understand their genetic risks and make informed health choices. Unfortunately, many third-world Muslim countries lack the resources to provide this essential service, thereby exacerbating health disparities within their communities.

Recent research, such as a study conducted in Kashan, Iran, underscores the stark difference in congenital anomaly rates between offspring of consanguineous and non-consanguineous marriages. The study revealed a 2% prevalence of congenital malformations in neonates from non-consanguineous marriages compared to 7% from consanguineous marriages.¹ Offspring of consanguineous couples are more susceptible to under-five mortality and numerous health complications, including single-gene disorders like sickle cell disease and thalassemia, as well as multifactorial diseases such as bronchial asthma and epilepsy.²

Moreover, multinational studies demonstrate that offspring of first cousins face a 1.7%-2.8% increased risk of significant birth defects and a 1.1% higher average neonatal and infant mortality rate compared to non-consanguineous pairs.³ Additionally, Albanghali's comprehensive study highlights the intricate association between parental consanguinity and various hereditary health conditions, ranging from cardiovascular diseases to speech disorders.⁴

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Rare bleeding disorders (RBDs), which are more prevalent in regions with high rates of consanguineous marriages, add another layer to these health challenges, particularly in the Middle East. However, the lack of standardized rehabilitation services for RBDs remains a critical gap. Educating prospective parents about the risks associated with consanguinity, coupled with preconception counselling, represents an essential step in mitigating these risks. Equally important is raising awareness among young adults about the complexities of consanguineous marriages to reduce the prevalence of RBD cases.⁵

In light of these sobering realities, I urge policymakers, healthcare providers, and international organizations to champion the implementation of genetic counselling services in third-world Muslim countries. Through collective action, we can address the health risks linked to consanguinity and pave the way for a brighter, healthier future for countless families.

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