STUDENTS' CORNER
LETTER TO THE EDITOR

Addressing the Thalassemia Burden in Pakistan: The urgent need for a mandate on premarital screening

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Dear Editor, Haemoglobinopathies are the most common recessively inherited single-gene genetic disorders around the world. Thalassemia is a genetic blood disorder that can be prevented. It has a high incidence rate in Mediterranean, Middle Eastern, and South Asian populations, making it the most prevalent genetic blood disorder globally.[1] The high prevalence of haemoglobinopathies is a significant public health concern. Pakistan has an estimated 10 million carriers of β-Thalassemia, with 5-7% carrier rate.[3] Every year, around 5000 children are diagnosed with β-Thalassemia major. Poverty, early marriages, consanguinity, limited awareness, rapid population growth, insufficient healthcare resources, and the scarcity of safe blood supplies exacerbate this issue.

Practical strategies for mitigating the thalassemia burden have been implemented worldwide, providing healthcare professionals and the public with accurate information, counselling families, and premarital screening. Thalassemia screening before marriage has proven to be successful in other regions. In the MENA region, various countries have implemented premarital screening programmes to prevent haemoglobinopathies and viral infections, proving immensely successful.[3] In Saudi Arabia, a reduction of over 70% in the prevalence of β-Thalassemia was documented six years after the introduction of the premarital screening programme.[4] Similarly, a premarital screening programme in Kuwait prevented the marriage of 50.4% of couples at risk over eleven years by issuing unsafe marriage certificates.[5] The success of premarital thalassemia screening programmes in other countries is a testament to the potential of preventive measures. These international examples offer valuable insights on how Pakistan can alleviate the burden of thalassemia within its population. While increasing awareness among parents and families is crucial, a more comprehensive approach is necessary. Pakistan must focus on preventing the disease and introduce strict laws mandating premarital screening nationwide.

Given the gravity of the thalassemia crisis in Pakistan and the proven success of premarital screening in other regions, the imperative for a nationwide mandate on premarital thalassemia screening cannot be overstated. Such legislation has the potential to substantially reduce the incidence of thalassemia by identifying carrier couples early in their relationship, thereby preventing high-risk marriages. By enacting and enforcing these laws, Pakistan can proactively address the root causes of this health issue and pave the way for a healthier and more informed future.

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