

Conference Abstract



A Study on Public Health Intervention's Impact on Carrier Screening Rates, Thalassaemia Awareness, and Voluntary Blood Donation in Sindh, Pakistan: A Valiant Effort of Sindh Blood Transfusion Authority

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Introduction: Thalassaemia is a genetically inherited autosomal recessive disorder characterized by imperfect hemoglobin chains. This defect can either be in the beta or alpha globin gene resulting in “Beta Thalassaemia” or “Alpha Thalassaemia” respectively. Each of the Thalassaemia is then characterized into Minor, Intermedia or Major depending upon the number of faulty globin genes. Unfortunately, in Pakistan due to lack of knowledge, the prevalence of this disease is showing increasing trends mainly due to the culture of consanguineous marriages.

To combat such occurrences, regular training of healthcare providers, testing for Thalassaemia trait as well as awareness sessions within voluntary blood donation camps for community otherwise, to eradicate and prevent this genetic disorder, should be taken as an apt method. The main aim of this study was to evaluate the impact of training, awareness, and screening of Thalassaemia trait, where Sindh Blood Transfusion Authority (SBTA) in collaboration with Thalassaemia centers and health department of Sindh has played a crucial role. SBTA conducted this study to retrospectively analyze the screening data collected via all the above-mentioned activities of thalassaemia centers of province.

Methodology: It was retrospective analytics of data gathered from 23 Thalassaemia centers within the Sindh province. Data was collected by SBTA, and analysis was done on SPSS version 23 using all the descriptive statistics. Frequency was calculated in respect to blood donation camps, awareness session, screening of Thalassaemia patients and chorionic villous sampling

(CVS) screening. These programs were mainly funded by the Sindh Health Government and supported by SBTA.

Results: Over the last few years, almost 35,605 people were screened for Thalassaemia trait in Sindh. Majority of the individuals were screened within the last two years due to active involvement of the SBTA, as the Authority is vigilantly monitoring the preventive measures taken against Thalassaemia. Data from different centers showed variable results, however the percentage of Thalassaemia trait was around 3-5% in general population and 10-12% in extended family screening. This huge number coincides with the increasing prevalence of Thalassaemia major in our country.

Apart from the screening, SBTA also collaborated for voluntary donation camps and awareness sessions conducted by Thalassaemia centers and authorities to ensure the dissemination of proper knowledge and perception in public. A total of 940 blood donation camps were arranged all over Karachi in one year, to increase the rate of healthy voluntary blood donation in the region. Moreover, in Karachi as well as other areas of Sindh, numerous awareness sessions regarding Thalassaemia were held to ensure the appropriate training proficiency. A total of 705 awareness sessions were organized all over Sindh with thousands of participants attending them. Moreover, SBTA also joined hands with the other authorities of Pakistan including NADRA, Ministry of Interior for Passport offices, and conducted free Thalassaemia screening over the past 1 year. Notably, none of the above-mentioned activities had any financial constraint for any of the patient, attendant or donor and maximum aspects of these sessions were financially

supported by the SBTA through health department of Government of Sindh. Overall, this study showed the enthusiasm of public awareness and screening by SBTA and Sindh government, however the increasing number of Thalassaemia trait in extended family and general population is alarming and requires urgent attention from the authorities.

Conclusion: This study emphasizes how critical it is to put in efforts to increase public knowledge of Thalassaemia, make screening more accessible, and offer afflicted people the due comprehensive care. Future studies could examine these interventions for long-term effects, pinpoint any obstacles to their successful application, and create plans to maximize results.

Disclosure

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