

## **Knowledge, Attitude, and Practice on Genetic Testing Among Sarawakians – A Survey**

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### **Structured Abstract**

**Background:** Genetic testing is an emerging tool in modern healthcare that offers significant potential for disease prevention, early detection, and personalized treatments. However, in culturally diverse regions such as Sarawak, socio-cultural and religious beliefs may influence the public's acceptance and understanding of genetic testing. This study investigates knowledge, attitudes, and practices regarding genetic testing among Sarawakians, focusing on the roles of education, religion, and cultural factors.

**Methods:** A cross-sectional survey was conducted among Sarawakians using a structured questionnaire. The survey assessed participants' knowledge, attitudes, and practices related to genetic testing. Correlation analyses were performed to identify associations between demographic factors (e.g., education, religion, income, age, and race) and responses.

**Results:** The study revealed that 75.6% of respondents had adequate knowledge of genetic testing, recognizing its potential for identifying hereditary conditions and improving disease prevention. Education levels strongly correlated with greater awareness and understanding, while religious beliefs were inversely associated with knowledge, reflecting potential cultural or spiritual barriers. Most participants expressed positive attitudes toward genetic testing, supporting its integration into public healthcare and advocating for affordability and accessibility; however, concerns about privacy, discrimination, and emotional distress were prevalent. Practices related to genetic testing were largely positive, with many respondents willing to undergo testing if hereditary conditions were present and supporting the sharing of test results with healthcare professionals to improve medical care. Despite these findings, key barriers such as the cost of genetic testing, lack of knowledge and awareness, and limited accessibility persist.

**Conclusion:** While Sarawakians generally hold positive views of genetic testing, barriers such as religious reservations, privacy concerns, and emotional distress must be addressed. Educational initiatives tailored to Sarawak's cultural and religious context are essential to increase awareness, acceptance, and access to genetic testing. Policymakers should prioritize integrating genetic testing into public healthcare while ensuring that ethical and privacy concerns are effectively managed.

**Keywords:** DNA screening, borneo, awareness, perception, behaviour

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