

## Knowledge and Awareness of Glucose -6-Phosphate Dehydrogenase Deficiency in Saudi Arabia

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### ABSTRACT

**Background:** To ensure better early detection, appropriate treatment timing, and better prevention of triggering events, a broad health education program about Glucose-6-Phosphate Dehydrogenase Deficiency (G6PD) deficiency is needed. This study aimed to evaluate the public's knowledge and awareness level towards G6PD in Saudi Arabia.

**Methods:** This is a cross-sectional survey study that was conducted in Riyadh, Saudi Arabia between October 2023 and June 2024. Patients and visitors referring to IMAMU medical center in Riyadh, Saudi Arabia formed the study population. Convenience sampling technique was used to recruit the study participants. The questionnaire tool measured the population's knowledge level about G6PD, its anemic attack, and the disorder-triggering factors.

**Results:** A total of 214 participants were included in our analysis. The majority of participants (n= 84, 39.3%) believed that a child must have both parents as carriers to be affected by G6PD deficiency anemia. Most participants (n= 130, 60.7%) recognized G6PD deficiency as an inherited disorder. More than half of the participants (n= 118, 55.1%) believed they didn't have G6PD deficiency. The majority (n= 94, 43.9%) did not believe there was a link between the G6PD deficiency anemia and the gender of the baby. Most participants (n= 150, 70.1%) believed that neonatal diagnosis of G6PD deficiency anemia is beneficial for the child's care. Participants showed a similar response regarding whether certain medications could trigger an attack of G6PD deficiency anemia, with 88 participants (41.1%) responding "yes". Approximately half of the participants (n= 102, 47.7%) agreed that jaundice is one of the symptoms of G6PD deficiency anemia attack. None of the demographic variables showed a statistically significant association with knowledge scores.

**Conclusion:** The majority of the participants recognized G6PD deficiency as an inherited disorder. The majority of the participants demonstrated a satisfactory level of knowledge concerning G6PD and its risk factors. Continuous educational campaigns are warranted to increase public knowledge of the diseases and help in their prevention. Besides, ongoing screening campaigns for all genetic diseases are needed to decrease the probability of developing complications associated with these diseases.

**Keywords:** Awareness; Glucose-6-Phosphate Dehydrogenase Deficiency; Knowledge; Population; Saudi Arabia

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