

Survey Among Healthcare Professionals On The Implications Of Pharmacogenetics And Its Limitations

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Abstract

Pharmacists are expected to play an important role in applying pharmacogenetic discoveries to patient care. Despite the increased attention to genetic research in Qatar, clinicians' attitude towards pharmacogenetics' applications are not yet explored.

Purpose: To determine the level of awareness, and perceived clinical implications of pharmacogenetics among health care professionals (physicians and pharmacists) in Qatar.

Methods: A cross-sectional survey instrument was developed based on literature review. Eligible participants were pharmacists and physicians currently practicing in Hamad Medical Corporation (HMC) hospitals in Qatar. The survey comprised questions on demographic and professional characteristics. It also evaluated the awareness, attitudes and challenges towards pharmacogenetics and its application.

Results: Our preliminary results included 179 participants, 104(58%) of which are pharmacists and the remaining 75(42%) are physicians. The overall participants' mean total awareness score was low (45%±25). However, pharmacists tended to have higher awareness score compared to physicians but didn't reach statistical significance (48±25% Vs. 41±25%, P = 0.06). Pharmacists had significantly more positive attitude than physicians, towards taking the responsibility of applying pharmacogenetics to drug therapy selection, dosing and monitoring ("Agree" 63% Vs 37%; "disagree" 5% Vs 28%, P<0.001), as well as counseling the patients on their pharmacogenetic testing results("Agree"67% Vs 56%; "disagree" 10% Vs 24%, P = 0.05) and educating the patients about available pharmacogenetic testing for their medications ("Agree" 74%Vs 52%; "disagree" 4% Vs 18%, P = 0.002). Both pharmacists and physicians perceived lack of knowledge (81%) as well as lack of guidelines (53%) among the major challenges towards the application of pharmacogenetics in Qatar.

Conclusion: despite physicians' and pharmacists' low level of awareness towards pharmacogenetics, they both have positive attitude towards the clinical implications of pharmacogenetics. Pharmacists are more motivated to learn about pharmacogenetics and are more willing to take initiatives in its clinical application and patient education.