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# AN ONLINE APPROACH TO ENHANCE AWARENESS ON PHARMACOGENETICS AMONG PHARMACISTS AND PHYSICIANS

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## INTRODUCTION

**Clinical implementation of pharmacogenetics (PGx) may be encouraged through increased awareness among healthcare professionals.[1] Online-based learning methods provide improved access to information for healthcare professionals.[2]**

## AIMS

**To develop, disseminate and evaluate PGx-related information to promote awareness among pharmacists and physicians.**

## METHOD

***Development of tutorial and evaluation form***

**A tutorial *'Pharmacogenetics: A tool for precision medicine'* was developed and recorded as a 15-minute video.**

**Topics included: Nomenclature, Benefits of PGx, PGx-related information resources, Clinical application of PGx using three case studies (Oncology, Cardiology, Infectious disease) and Future directions.**

**A questionnaire to evaluate the video was developed.**

***Validation of tutorial and evaluation questionnaire***

**The tutorial and evaluation questionnaire were validated for content and presentation by 5 pharmacists and 2 physicians.**

***Dissemination of tutorial and evaluation form:***

**i) Online to pharmacists (n=835) and physicians (n=984) via social media groups;**

**ii) Live presentation to pharmacists and physicians attending a workshop.**

***Statistical analysis of evaluation questionnaire results***

**Descriptive statistics were calculated as mean rating scores (1-lowest to 5-highest) for Likert-type questions.**

## RESULTS

- **The evaluation questionnaire was completed by 66 participants (57 online, 9 live presentation). Thirty-three participants were pharmacists (25 female, 8 male, mean age 30 years) and 33 were physicians (15 female, 18 male, mean age 33 years).**
- **Fifty-six participants were willing to follow future online-based learning related to PGx. Participants' agreement towards relevance of the discussion topics and information presented in the PGx video are shown in Table 1 and 2.**

**Table 1. Relevance of discussion topics (N=66)**

| Relevance of discussion topics: | Mean rating scores | |
|---|---|---|
| | Pharmacists (n=33) | Physicians (n=33) |
| Nomenclature related to PGx | 4.1 | 3.5 |
| Benefits of PGx | 4.5 | 3.9 |
| PGx information resources | 4.4 | 3.9 |
| PGx clinical case 1 (Oncology) | 4.5 | 4.0 |
| PGx clinical case 2 (Cardiology) | 4.5 | 3.9 |
| PGx clinical case 3 (Infectious disease) | 4.3 | 3.9 |

**Table 2. Evaluation of information presented (N=66)**

| Agreement of participants that information presented in the PGx video: | Mean rating scores | |
|---|---|---|
| | Pharmacists (n=33) | Physicians (n=33) |
| Was up-to-date | 4.2 | 4.2 |
| May help to improve application of theory to practice | 4.3 | 4.0 |
| Inspired them on the topic | 4.1 | 3.9 |
| Helped them identify their strengths and weaknesses in PGx | 4.2 | 3.8 |
| Is helpful for use in their practice | 4.1 | 3.7 |

## CONCLUSION

**Participants in this study recognised the relevance of the discussed topics and considered the PGx-related information disseminated to be applicable in their practice. Both healthcare professionals were receptive towards following future online-based learning on PGx.**

## REFERENCES

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2. Weitzel KW, Aquilante CL, Johnson S, Kisor DF, Empey PE. Educational strategies to provide pharmacogenomics-based care. Am J Health Syst Pharm. 2016;73(23):1986-98.