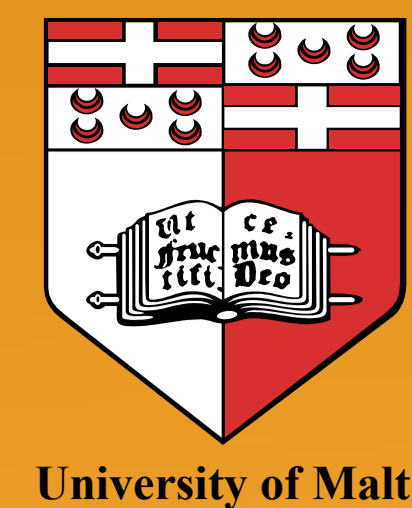


PUBLIC PERCEPTION OF PHARMACOGENETIC TESTING

Dominik Heuchel¹, Arniko Russ¹, Francesca Wirth², Ulrich Jaehde¹, Lilian M. Azzopardi²

¹Klinische Pharmazie, Pharmazeutisches Institut, Rheinische Friedrich-Wilhelms-Universität Bonn, Germany

²Department of Pharmacy, Faculty of Medicine and Surgery, University of Malta, Msida, Malta
dominik.heuchel@web.de



Department of Pharmacy

University of Malta

DI-018

BACKGROUND

By predicting possible ineffectiveness or side-effects, pharmacogenetic testing enables selection of the most suitable drug according to a patient's genetic make-up.¹ There is immense potential in applying pharmacogenetics in clinical practice to implement individualised patient treatment.²

OBJECTIVE

To evaluate the perception of pharmacogenetic testing among the general public in Malta. The focus was on basic attitudes towards pharmacogenetic testing, namely patient knowledge and willingness.

STUDY DESIGN

- A self-administered questionnaire was developed and psychometrically evaluated using a two-round Delphi technique for validation and test-retest method for reliability.
- The developed questionnaire consisted of two sections with a total of 20 questions. Section A dealt with general questions about pharmacogenetic testing and Section B focused on participants' willingness towards pharmacogenetic testing.
- Following ethics approval, 500 participants were recruited by convenience sampling over a 6-week period; 250 participants from public places in eleven different localities and 250 from five community pharmacies in different localities around Malta. Participants in health-oriented occupations were excluded.
- Descriptive statistics were calculated using IBM SPSS version 23.

RESULTS

- Of the 500 participants, 61% were female, mean age was 45 years (range 18-86 years) and 37% were educated to post-secondary level.
- 85% of the participants were not aware of the term 'pharmacogenetic testing'.
- 37% of the participants would be 'very willing' to have a pharmacogenetic test performed to assess the effectiveness of their medications (Figure 1).
- 51% of the participants 'strongly agreed' that a pharmacogenetic test would prevent them from taking an inappropriate drug or dose and 39% would be 'very willing' to have a pharmacogenetic test performed to assess the safety of their medications.
- 70% of the participants identified drugs to treat cancer as the drug class for which they perceived pharmacogenetic testing to be the most important (Figure 2).
- 67% of the participants selected the physician as the professional who should perform the test and 61% selected the hospital as the preferred location to have the test performed.
- 42% of the participants thought the test should be free-of-charge.
- 56% of the participants would expect to have the test result within a few days.
- 40% of the participants 'strongly agreed' that pharmacogenetic testing should be performed routinely.

Figure 1: Participants' willingness towards pharmacogenetic testing as a means of assessing effectiveness of medications (N=500)

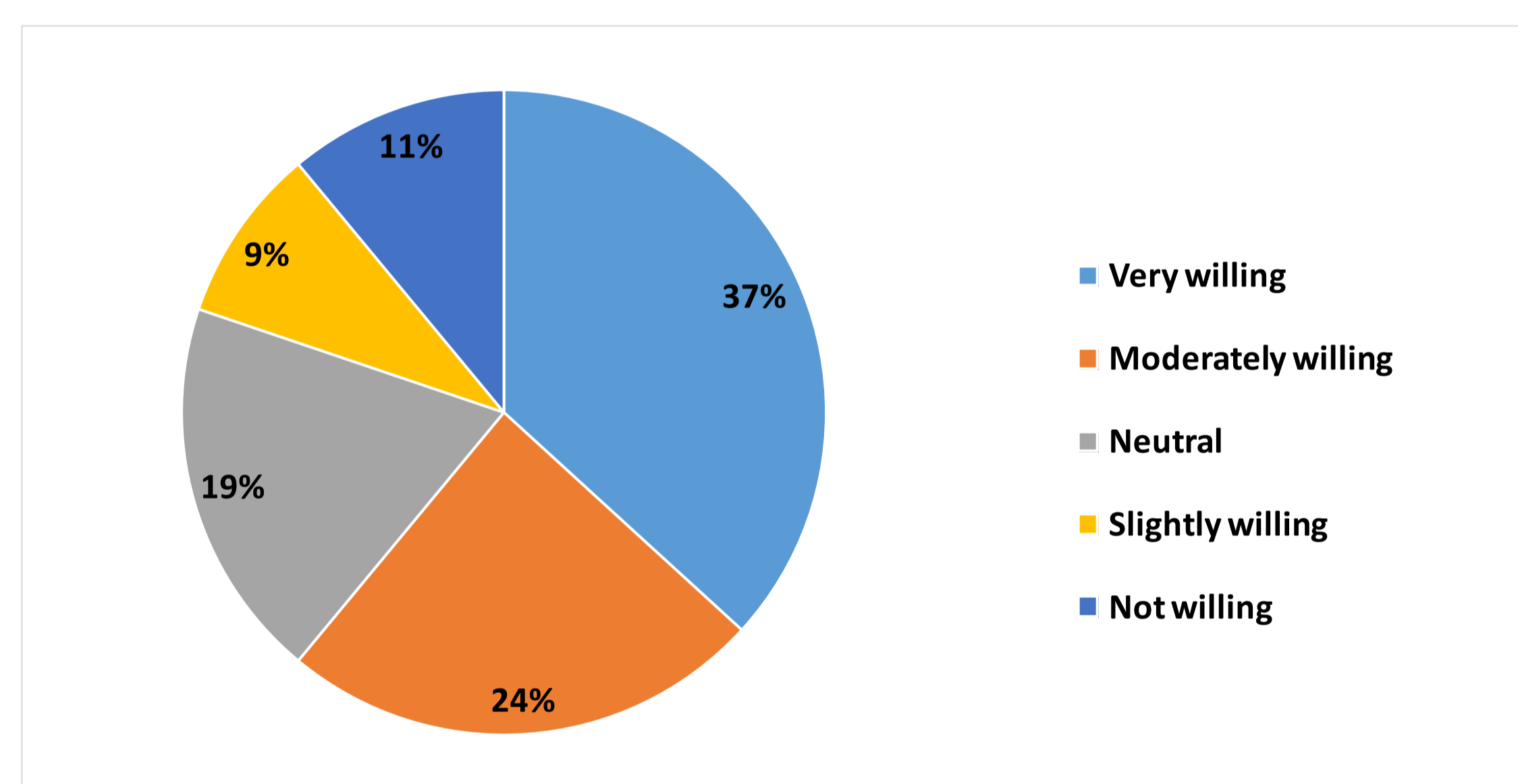
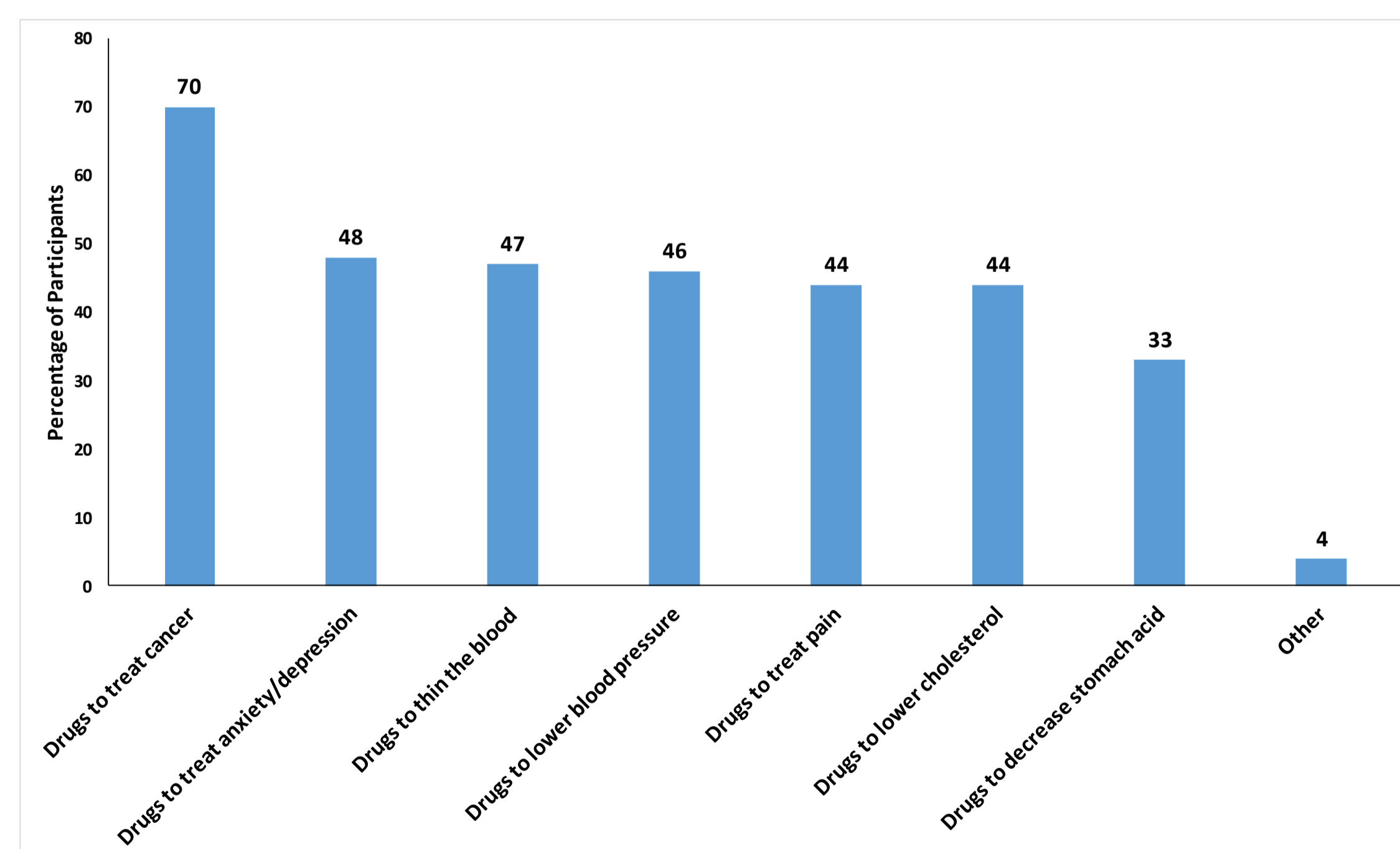


Figure 2: Participants' perception of important drug classes for pharmacogenetic testing (N=500)



CONCLUSION

Participants in this study had a positive overall perception of pharmacogenetic testing. The study contributes an understanding of expectations from society regarding pharmacogenetic testing.

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