Background

An increasing number of providers are being asked to interpret and discuss genetic test results with their patients. Practicing clinicians have low levels of knowledge of genomics and pharmacogenetics (PGx) and/or fellowship (R/F). No previous studies have assessed attitudes local GMTs have toward personalized medicine (PM). To evaluate the knowledge, skills and attitudes local GMTs have toward personalized medicine, including disease genetics & pharmacogenetics (PGx) and/or fellowship (R/F). Of 1190 GMTs contacted, 319 (26.8%) GMTs returned questionnaires with at least 90% of primary survey questions (excluding demographics) completed.

Respondent characteristics: 75.6% residents, 59.7% women, 76.2% non-Hispanic whites. 73.7% (n=235) of respondents reported receiving PM education in medical and/or graduate school (M/G). 49.5% (n=158) of respondents reported receiving PM education in residency and/or fellowship (R/F). 40.3% (n=128) of respondents had not utilized any PM resources in the past. * denotes p < 0.05.

Study Aim

To evaluate the knowledge, skills and attitudes local GMTs have toward personalized medicine, including disease genetics & pharmacogenetics (PGx) and/or fellowship (R/F). Of 1190 GMTs contacted, 319 (26.8%) GMTs returned questionnaires with at least 90% of primary survey questions (excluding demographics) completed.

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Methods

An anonymous, 47-item web-based survey was administered to all GMTs affiliated with University of Colorado from December 2019 to January 2020. Three email reminders were sent and participants were incentivized with the chance to win 1 of 10 gift cards following survey completion.

Descriptive statistics were calculated & associations between categorical variables were assessed using Chi square tests; p<0.05 was considered significant.

Results

Knowledge, Ability & Perception Assessments

- Of 1190 GMTs contacted, 319 (26.8%) GMTs returned questionnaires with at least 90% of primary survey questions (excluding demographics) completed.
- Respondent characteristics: 75.6% residents, 59.7% women, 76.2% non-Hispanic whites.
- 73.7% (n=235) of respondents reported receiving PM education in medical and/or graduate school (M/G).
- 49.5% (n=158) of respondents reported receiving PM education in residency and/or fellowship (R/F).
- 40.3% (n=128) of respondents had not utilized any PM resources in the past. * denotes p < 0.05.

Resource Utilization & Awareness

- Respondents who reported receiving PM education in M/G are more likely to report confidence in their knowledge of and ability to apply PM compared to those who did not receive PM education in M/G.
- The majority of respondents felt sufficiently informed about personalized medicine.

Discussion

- Majority of respondents did not feel sufficiently informed about PM and were unaware of the resources available to help integrate PM into clinical care.
- Respondents who reported receiving PM education in R/F were significantly more likely to report confidence in their knowledge of and ability to apply PM compared to those who did not receive PM education in R/F (p < 0.0001).
- Respondents who reported receiving PM education in M/G reported similar confidence in their knowledge of PM compared to those who did not receive PM education in M/G.

Conclusions

- PM education in M/G is not sufficient to improve GMTs' knowledge of PM.
- PM curricula developed specifically for GMTs affords the possibility to improve future clinicians’ knowledge of and ability to apply PM in the clinical setting.
- Future research is needed to assess PM curricula for GMTs and its impact on clinical care.

References