

BACKGROUND

Precision medicine and molecular testing for specific biomarkers to inform treatment selection has evolved to become the standard of care for advanced breast cancer. Although there is widespread education for health care practitioners, there is less education available for patients. Two surveys from the oncology literature (Pinheiro 2017, Ciardiello 2016) reported that 90% of physicians worldwide utilize biomarkers and patients would like to understand how testing informs treatment.

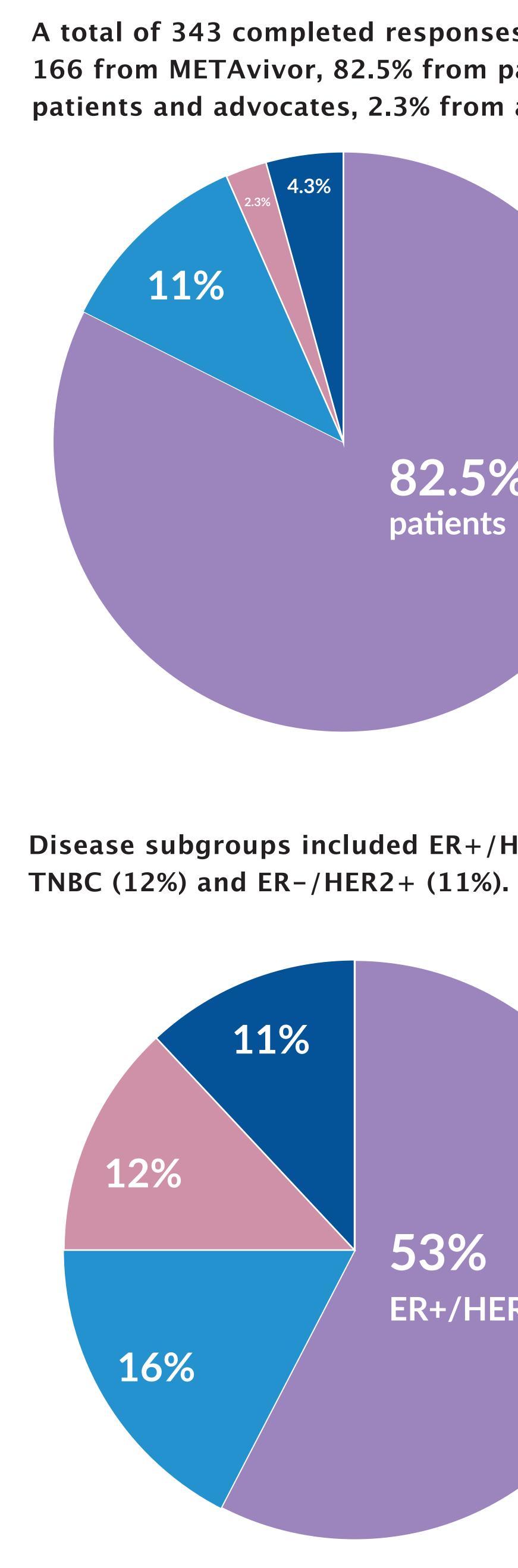
The objective of our online survey was to gain a greater understanding of patient familiarity with biomarker testing, specifically ESR1 mutation testing, and patient willingness to request information and testing. Patients were also surveyed about other areas of education of greatest interest, including quality of life (QOL) issues.

PATIENT ONLINE SURVEY

METHODS

A 10 question on-line survey was sent to patients through 2 patient advocacy organizations: CURE's CURExtra e-newsletter, and METAvivor's social media channels; METAvivor's survey included 2 additional questions to determine if respondents had metastatic disease and were currently on treatment. The survey asked about side effects impacting quality of life, satisfaction with information received about QOL issues, and knowledge about biomarkers (specifically ESR1), as well as willingness to request ESR1 testing.

RESULTS

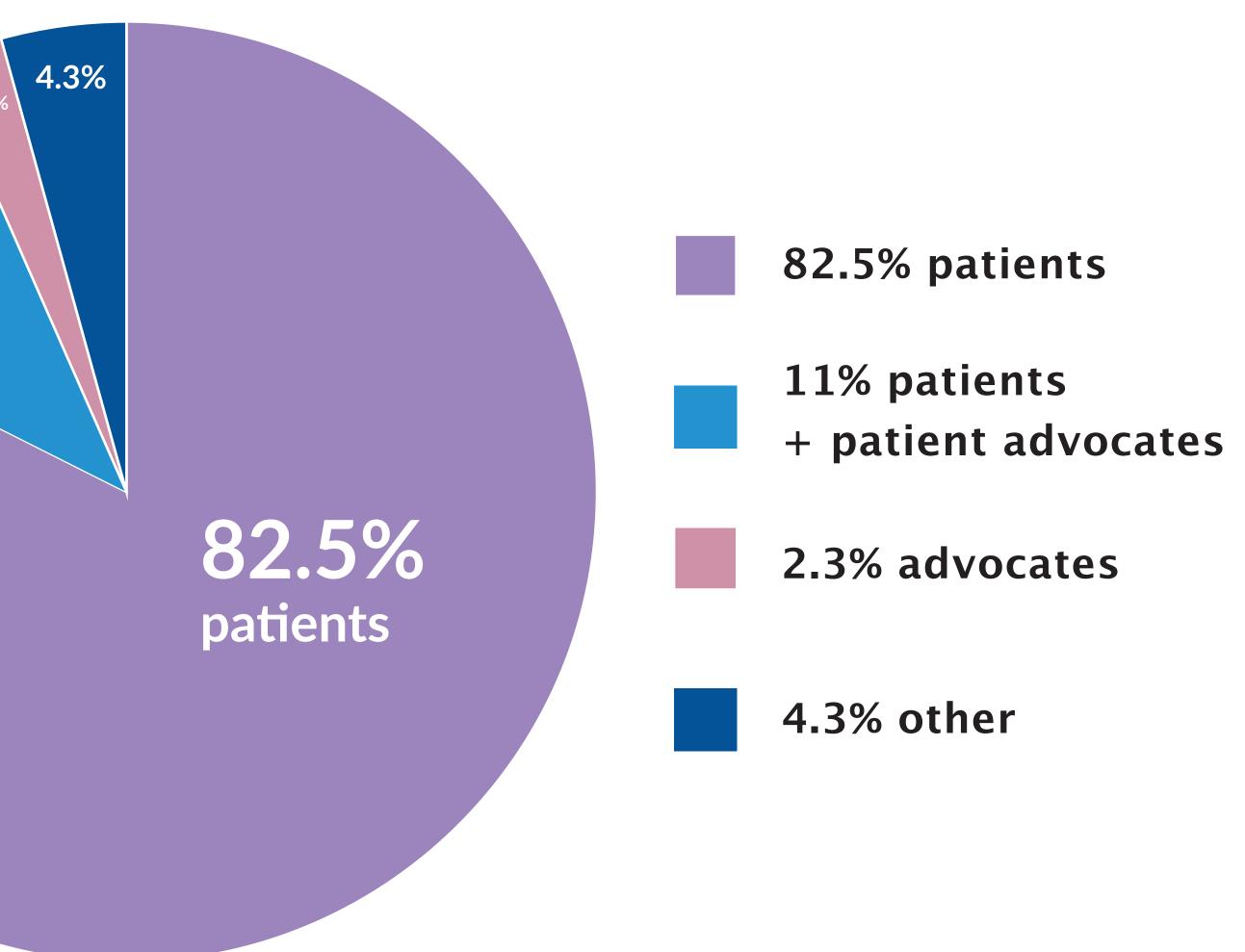


The mean and median times from diagnosis were 8.25 and 6 years.

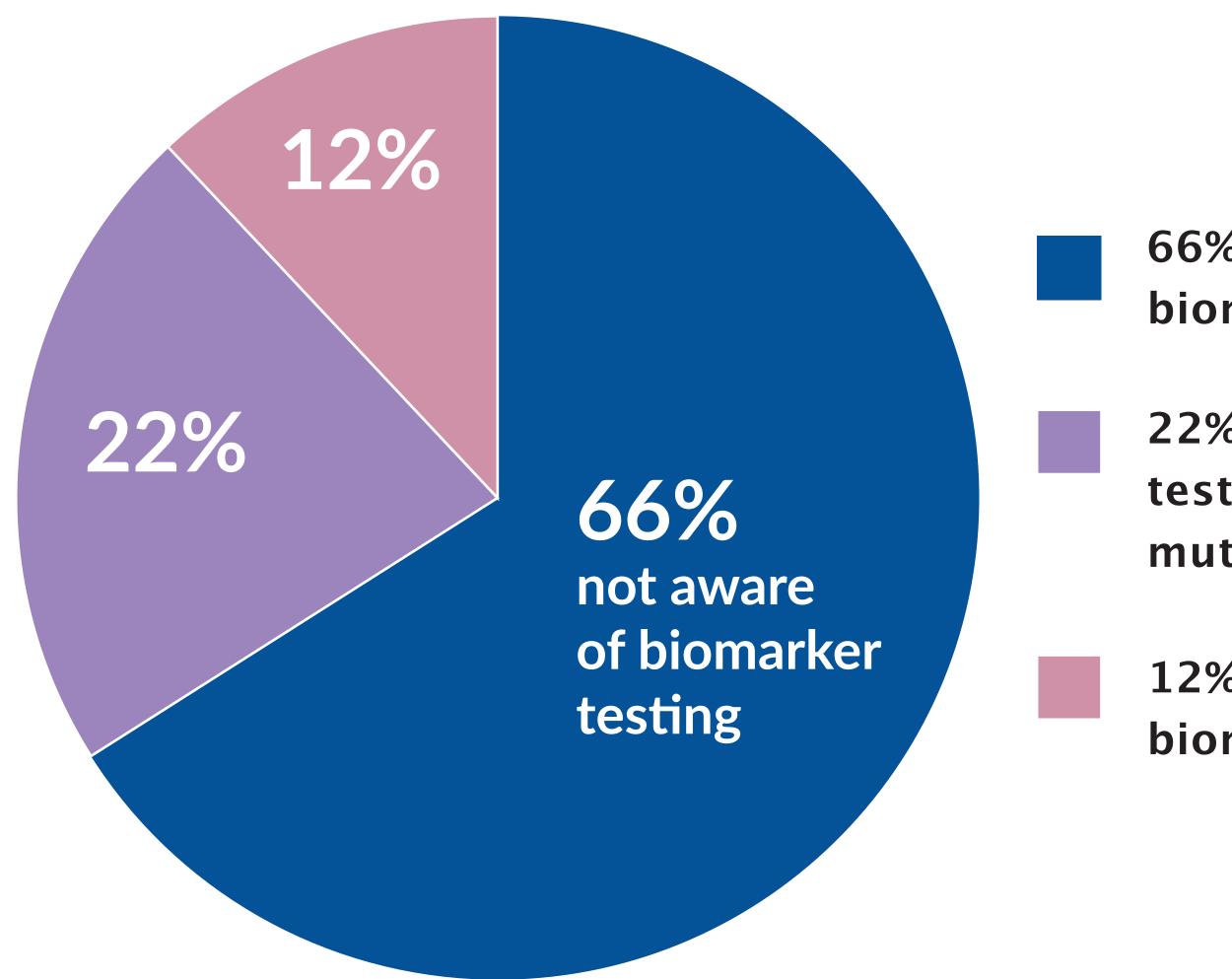
Patient Knowledge, Attitudes and Perceptions Regarding Breast Cancer Biomarkers, Testing, and Quality of Life

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A total of 343 completed responses were received: 177 from CURE and 166 from METAvivor, 82.5% from patients, 11% from patients who were patients and advocates, 2.3% from advocates, and 4.3% from 'other'.



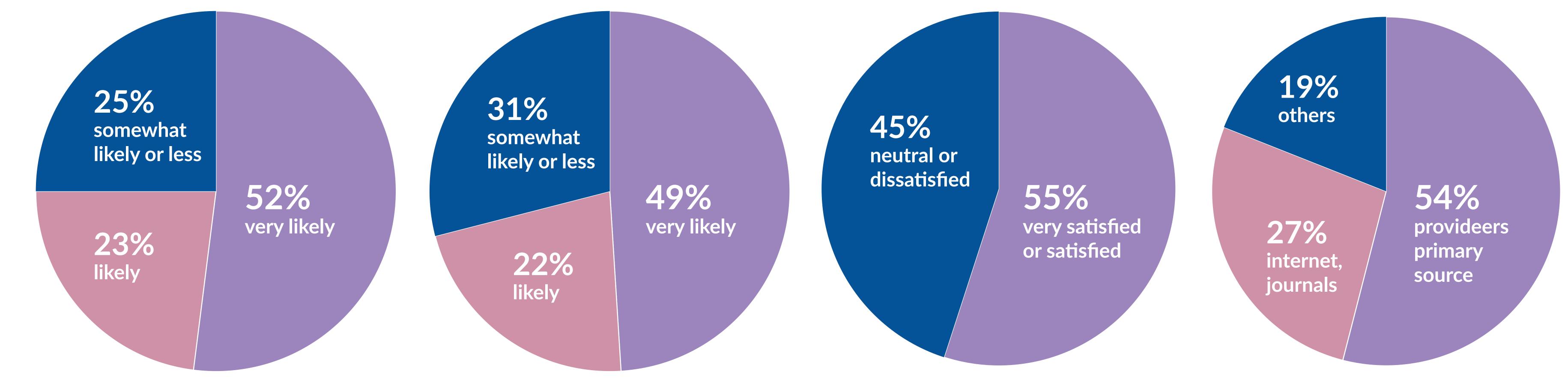
22% of patients surveyed were familiar with or aware of biomarker testing; only 12% were familiar with ESR1 mutations and biomarker testing.



Disease subgroups included ER+/HER2- (53%), ER+/HER2+ (16%),

53% ER+/HER2-**16% ER+/HER2+** 53% **12% TNBC** ER+/HER2-11% ER-/HER2+

75% of respondents were very likely (52%) or likely (23%) to ask their provider about ESR1 mutations if this would aid in tailoring treatment*.



*METAvivor respondents more likely to ask provider than CURE respondents (78 vs 70%).

66% not aware of biomarker testing

22% aware of biomarker testing but not ESR1 mutation

12% aware of ESR1 biomarker testing

78% New treatments in development

62% Joint pain

52% Sexual intimacy & recurrent UTIs

71% were very likely (49%) or likely (22%) to request ESR1 mutation testing.

54% looked to their providers as their 55% were very satisfied or satisfied with the QOL primary source of information, with 27% citing the internet and medical journals information that they were as additional sources of information. receiving from their provider.



CONCLUSIONS

- The results of this survey indicate knowledge gaps in patients with breast cancer
- Specific areas with knowledge gaps include genomic testing to tailor therapy and the role of ESR1
- QOL issues remain an area of unmet need
- These data underscore the desire of breast cancer patients for information related to new treatments in development, discussions with their provider specific to QOL, and how to manage therapy side effects
- Providing patient education tools for providers and patient advocacy organizations including information about tumor genomics, treatment options, and side effect management is of utmost importance

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REFERENCES

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- 2. Ciardiello F, Adams R, Tabernero J, et al. Awareness, Understanding, and Adoption of Precision Medicine to Deliver Personalized Treatment for Patients With Cancer: A Multinational Survey **Comparison of Physicians and Patients.** Oncologist. 2016;21(3):292-300. doi:10.1634/theoncologist.2015-0279

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