



# Utilizing Patient-Reported Outcome Questionnaires in Standard Practice: A Study from Thoracic Radiation Oncology

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## Background/Purpose

- Patient-reported outcome (PRO) questionnaires are one approach to improve patient-provider communication, enhance satisfaction, and increase survival.<sup>1-2</sup>
- However, there is limited research on its effectiveness in radiation oncology, and many providers are hesitant to implement PROs due to possible disturbance of clinical flow or lack of utility.<sup>3-5</sup>
- So, we examined provider and patient sentiments towards PRO questionnaires as part of routine clinical care.

## Methods

- Patients and providers were given a questionnaire to elicit their viewpoints on PRO utilization in the thoracic radiation oncology (TRO) department before and after PRO implementation.
- The provider questionnaire included questions about the benefits and downfalls of PRO implementation.
- The patient questionnaire included questions about care management, communication, decision-making, and comfort level.
- We used summary statistics to compare patient and provider surveys before and after PRO implementation.

## Results

Participants	All Participants (N=173)	Pre-Survey	Pre-Survey Percentage	Post-Survey	Post-Survey Percentage	Completed Survey	Completed Survey Percentage
<b>Provider</b>							
Attending		6	38%	8	50%	14	44%
Midlevel (Residents or PA)		6	38%	5	31%	11	34%
Nurse		4	25%	3	19%	7	22%
<b>Total</b>		16	50%	16	50%	32	
<b>Patient</b>		45	32%	96	68%	141	

Table 1 Demographics

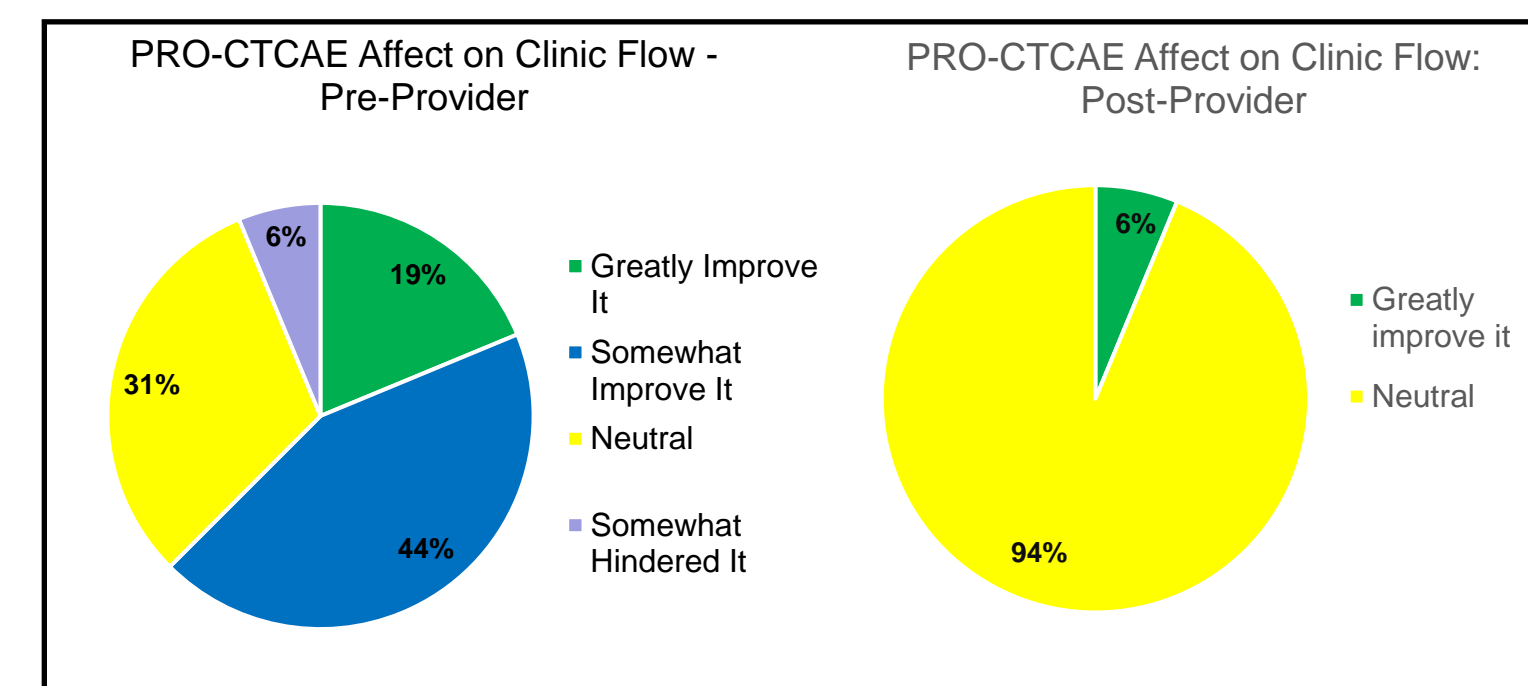


Fig. 1 Do TRO providers think that a PRO-CTCAE questionnaire will improve or hinder clinic flow.

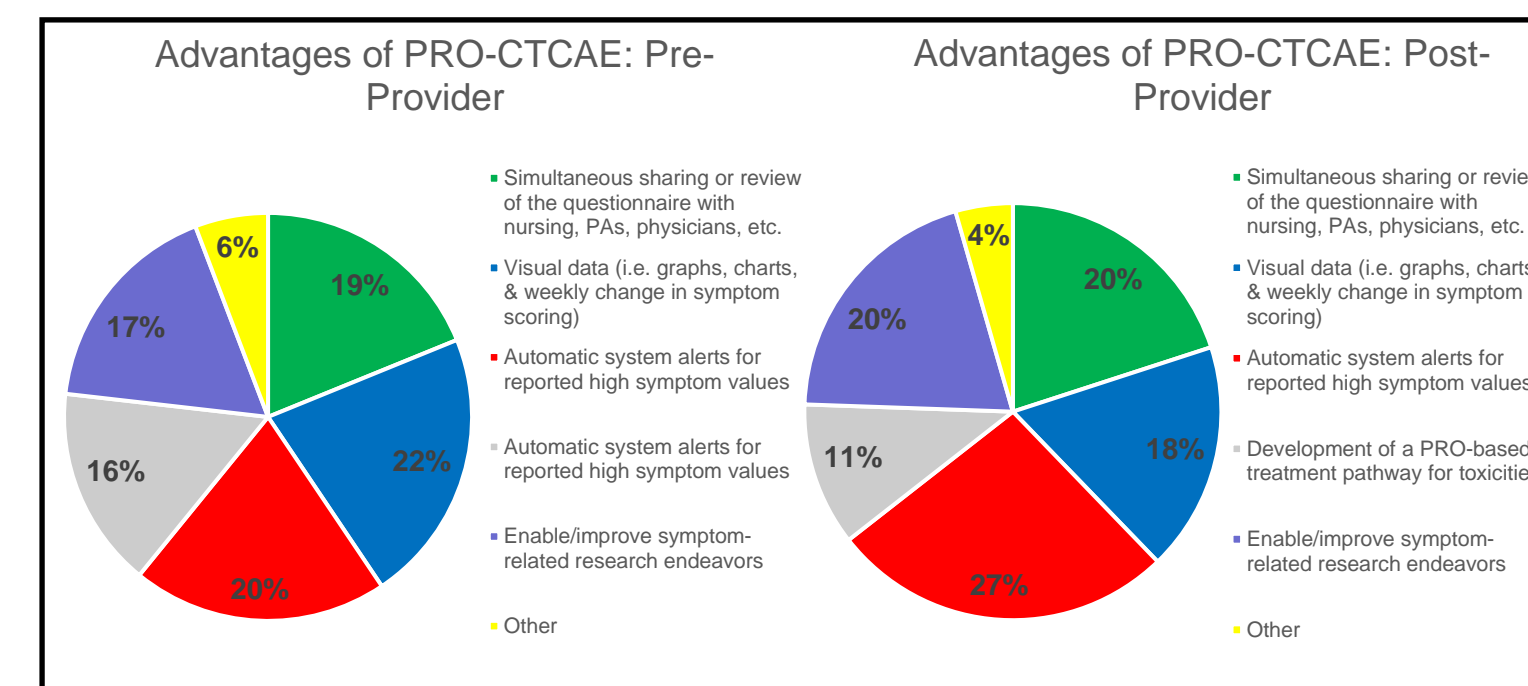


Fig. 2 What are the main advantages TRO providers expect or want to see after transitioning to the electronic patient-reported outcome (PRO-CTCAE) questionnaire.

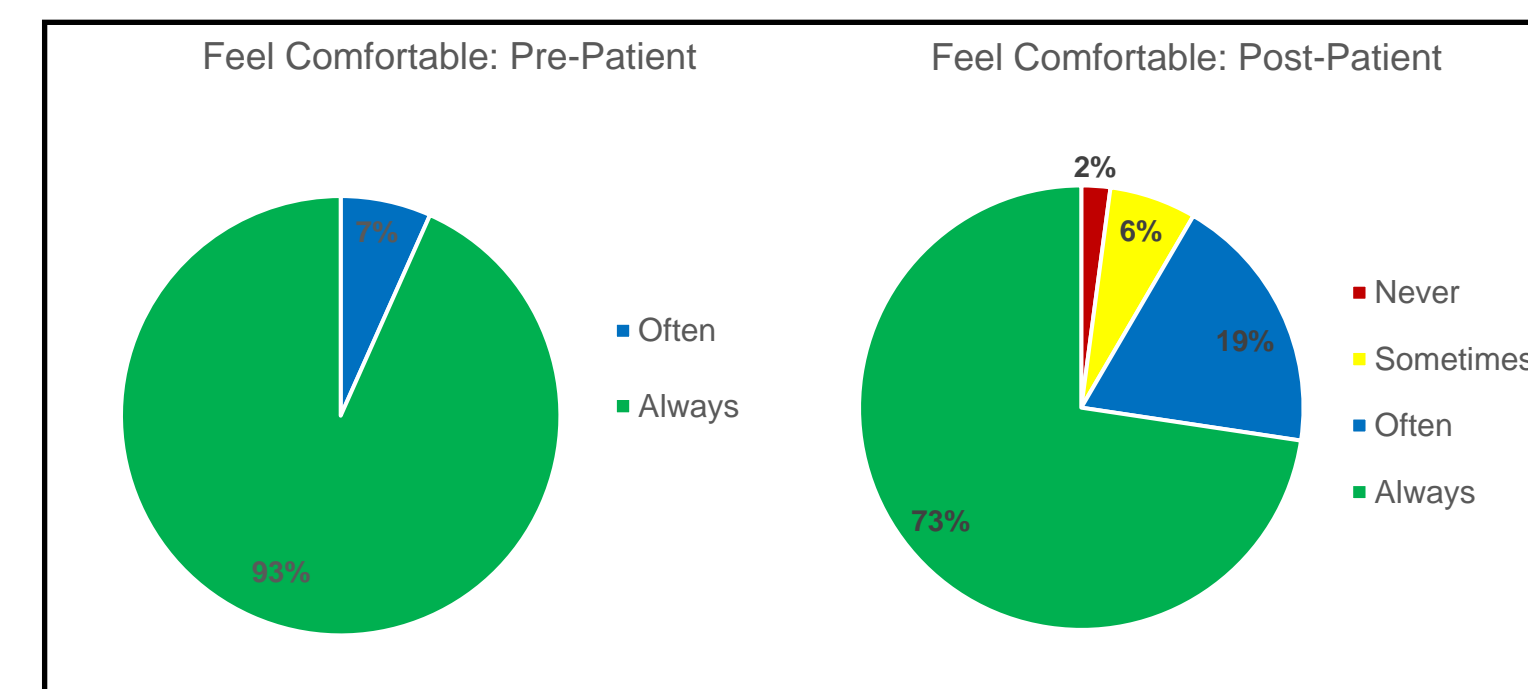


Fig. 3 Does the radiation provider care team make patients feel comfortable asking questions about their symptoms.

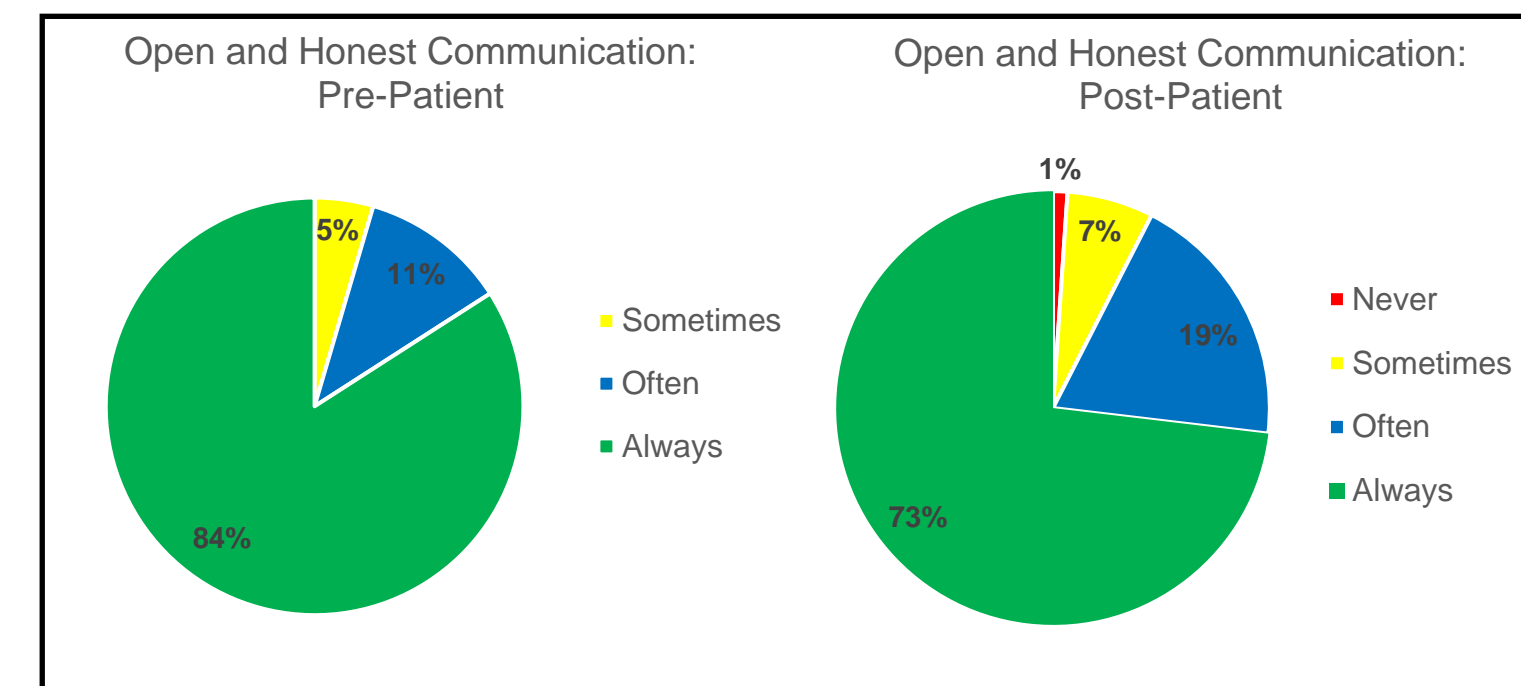


Fig. 4 Does the radiation provider care team have open and honest communication with patients about their symptoms.

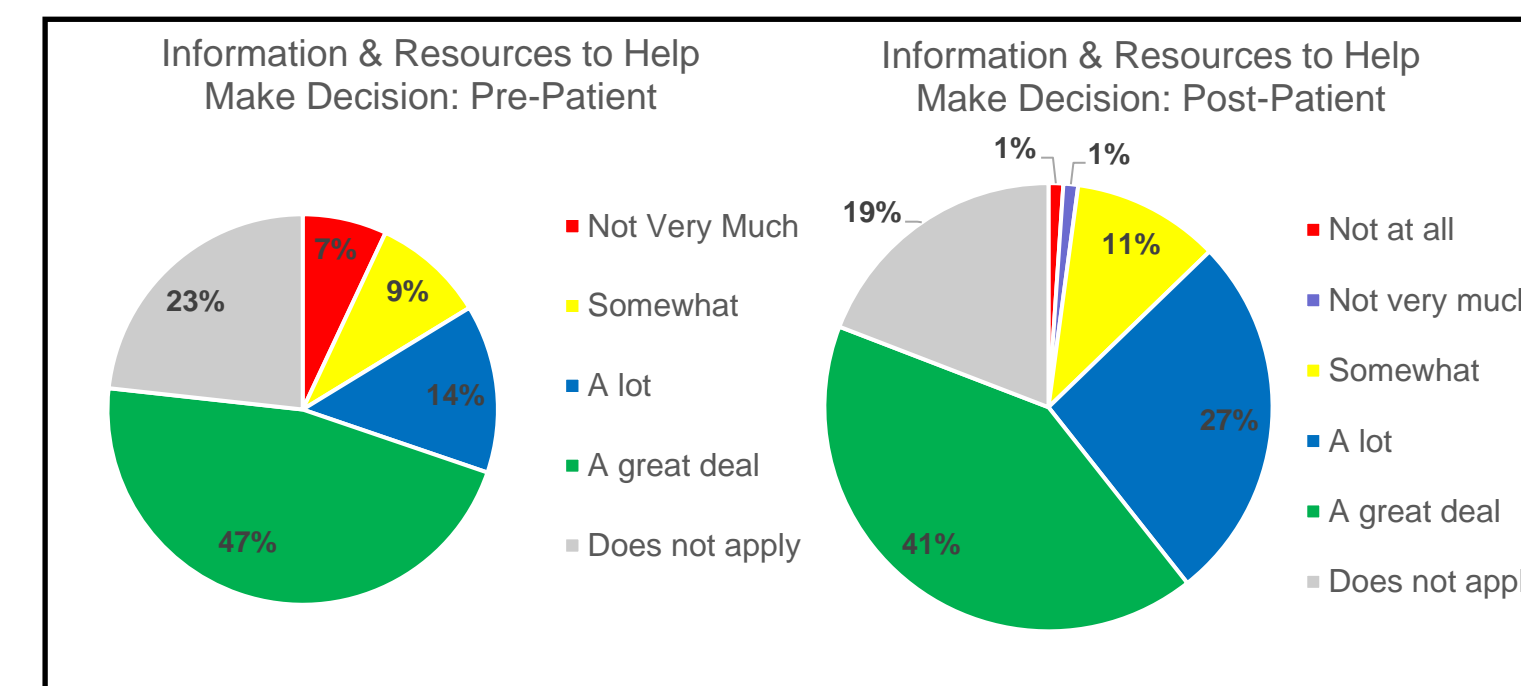


Fig. 5 How often does the radiation provider care team give patients information and resources to help them make decisions about how to manage their symptoms.

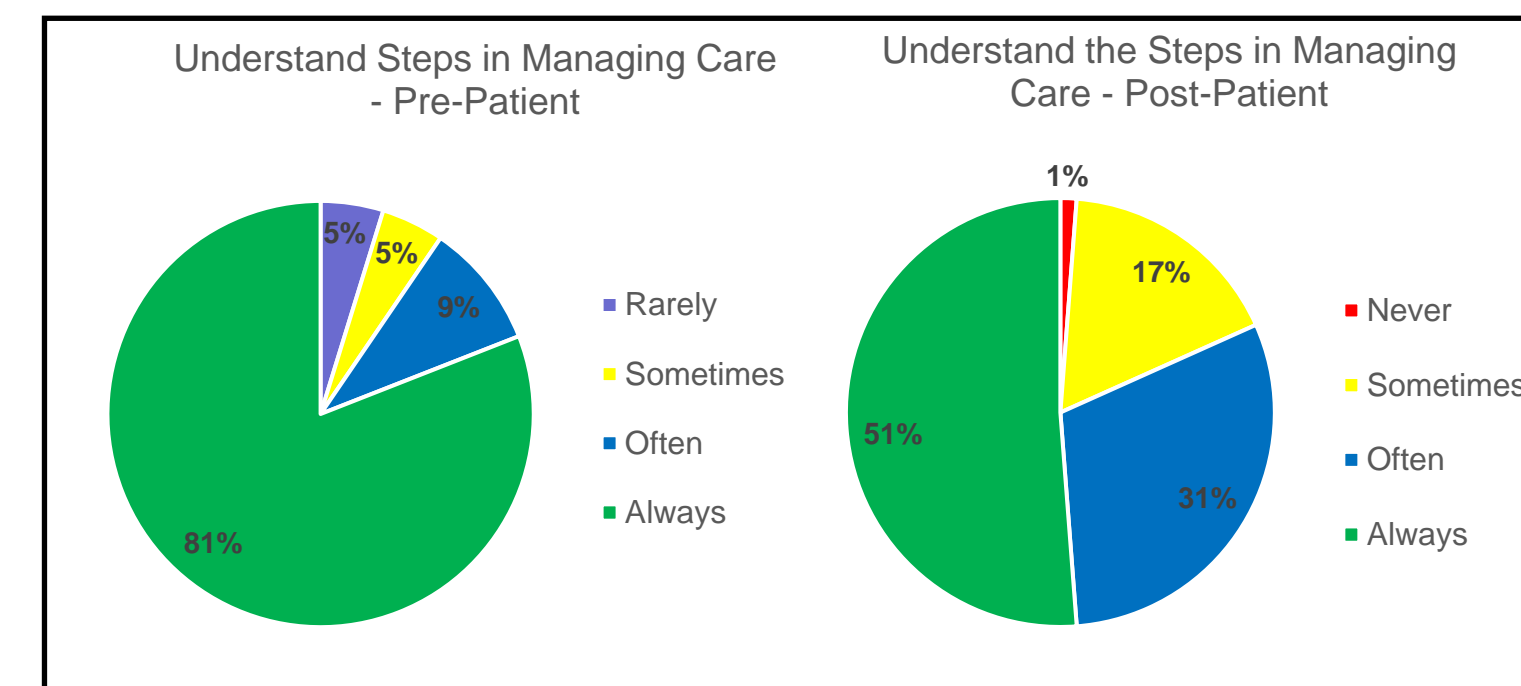


Fig. 6 How often does the radiation provider care team make sure patients understand steps in managing their care for symptoms.

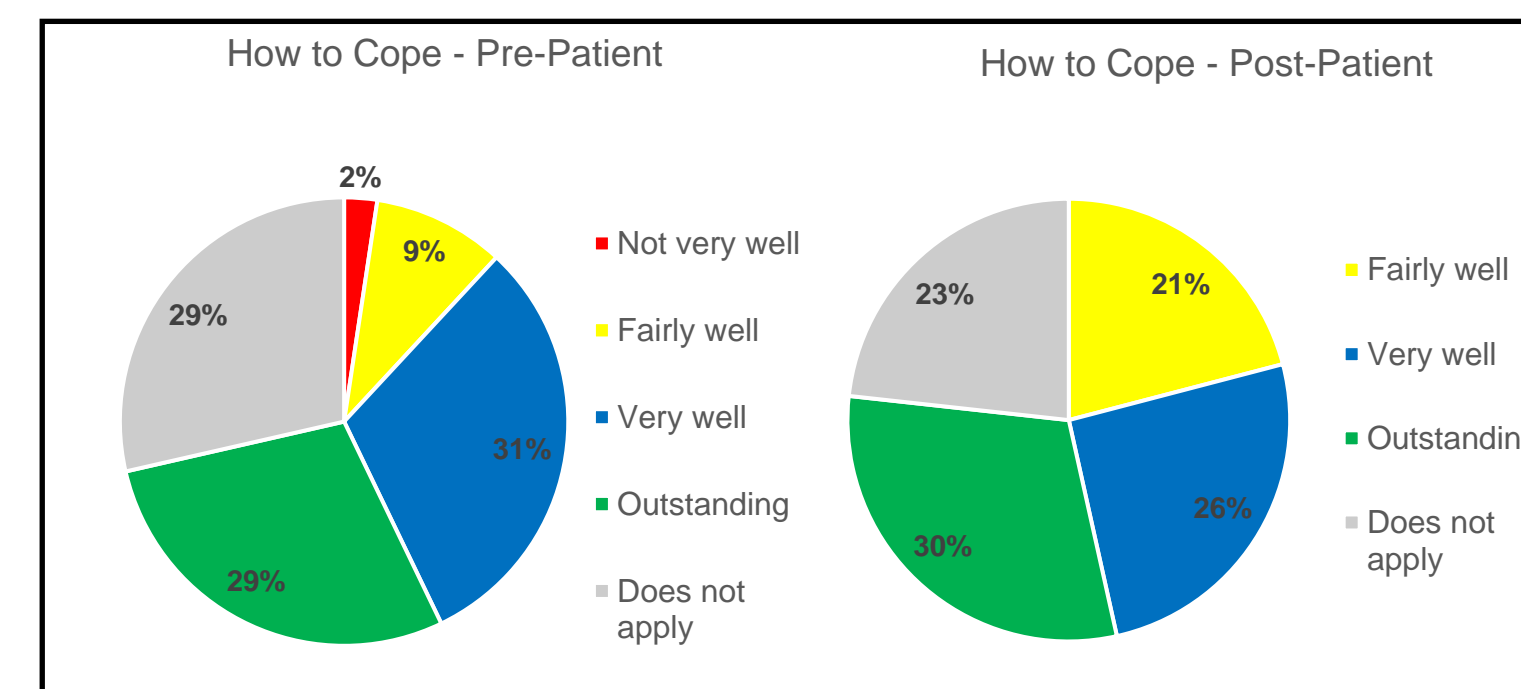


Fig. 7 How well does the radiation provider care team talk with patients about how to cope with any fears, stress, and other feelings related to their symptoms.

## Conclusion

### Pre- vs. post- providers:

- Prior to PRO implementation, providers were optimistic that PROs could improve clinical flow. However, most developed a neutral stance following implementation, suggesting an opportunity for improvement.
- Providers emphasized that they wanted PROs for data visualization and creation of a high-alert-value system; thus, these elements should be considered in PRO implementation.

### Pre- vs. post- patients:

- Patients' perception of the quality of patient-provider communication did not improve after PRO implementation and patients desired more information on symptom management and comfort.
- This suggests that while PRO implementation is an important tool to determine where communication gaps exist, additional strategies are needed to improve communication.

## References

1. Shah, N. K., et al. *International Journal of Radiation Oncology\*Biography\*Physics* 2020; 108(3)
2. Basch, E., et al. *Journal of Clinical Oncology* 2016; 34(6), 557–565
3. Kwon, J.-Y., et al. *Current Oncology* 2022; 29(5), 3093–3103
4. Hauth, F., et al. *JMIR MHealth and UHealth* 2019; 7(7)
5. Nordhausen, T., et al. *Journal of Patient-Reported Outcomes* 2022; 6(1)