

# Patient-Reported Information Gaps Regarding HPV-Mediated Oropharyngeal Cancer in a Rural State

Patrick Bidros<sup>1</sup>, Clayton Bobo<sup>1</sup>, Anthony Mahairas<sup>2</sup> and Melina Windon<sup>2,3</sup>

<sup>1</sup>University of Kentucky College of Medicine, Lexington, KY, 40509

<sup>2</sup>University of Kentucky College of Medicine, Department of Otolaryngology, Lexington, KY 40509

<sup>3</sup>Markey Cancer Center, University of Kentucky, Lexington, KY



## BACKGROUND

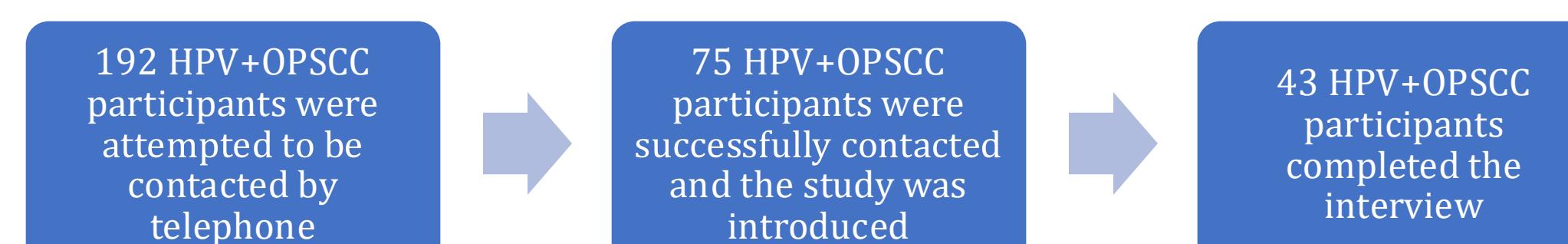
- Each year in the US, there is an estimate of over 16,000 new cases of human papillomavirus-mediated oropharyngeal cancers (HPV+OPSCC), and the incidence of this disease is rising.<sup>1</sup>
- Contrary to alcohol and tobacco use as etiologic agents for HPV-negative head and neck cancers, the general public remain largely unaware of its role in OPSCC.<sup>2</sup>
- In Kentucky, 57% of adolescents between the ages of 13 and 17 have received the HPV vaccine, reflecting one of the lowest vaccination rates in the country.<sup>3</sup>
- Work toward the beginning of the understanding of HPV as a distinct etiologic agent showed high anxiety and significant knowledge gaps regarding both HPV and cancer treatment at diagnosis of HPV-OPC.

## RESEARCH QUESTIONS

- What are the current knowledge gaps for patients with HPV+OPSCC in the state of Kentucky?
- What are the factors influencing patient experience and anxiety living with HPV+OPSCC?

## METHODS

- Participants diagnosed with HPV+OPSCC between 6/2021 – 12/2023 and treated at the NCI-Designated Markey Cancer Center in Lexington, KY were contacted by telephone
- Participants were asked to recall what questions they had at the time of diagnosis
- Participants were also asked to complete a telephone-based survey model based on a metropolitan study a decade prior.<sup>4</sup>
- Demographically, the median age was 65 (Range=32), 84% male, with 98% of participants identifying as white
- Of the 44 participants who completed the telephone interview, 32 participants agreed to provide further demographic information: 24 were married, and 14 had obtained a college degree or higher



## RESULTS

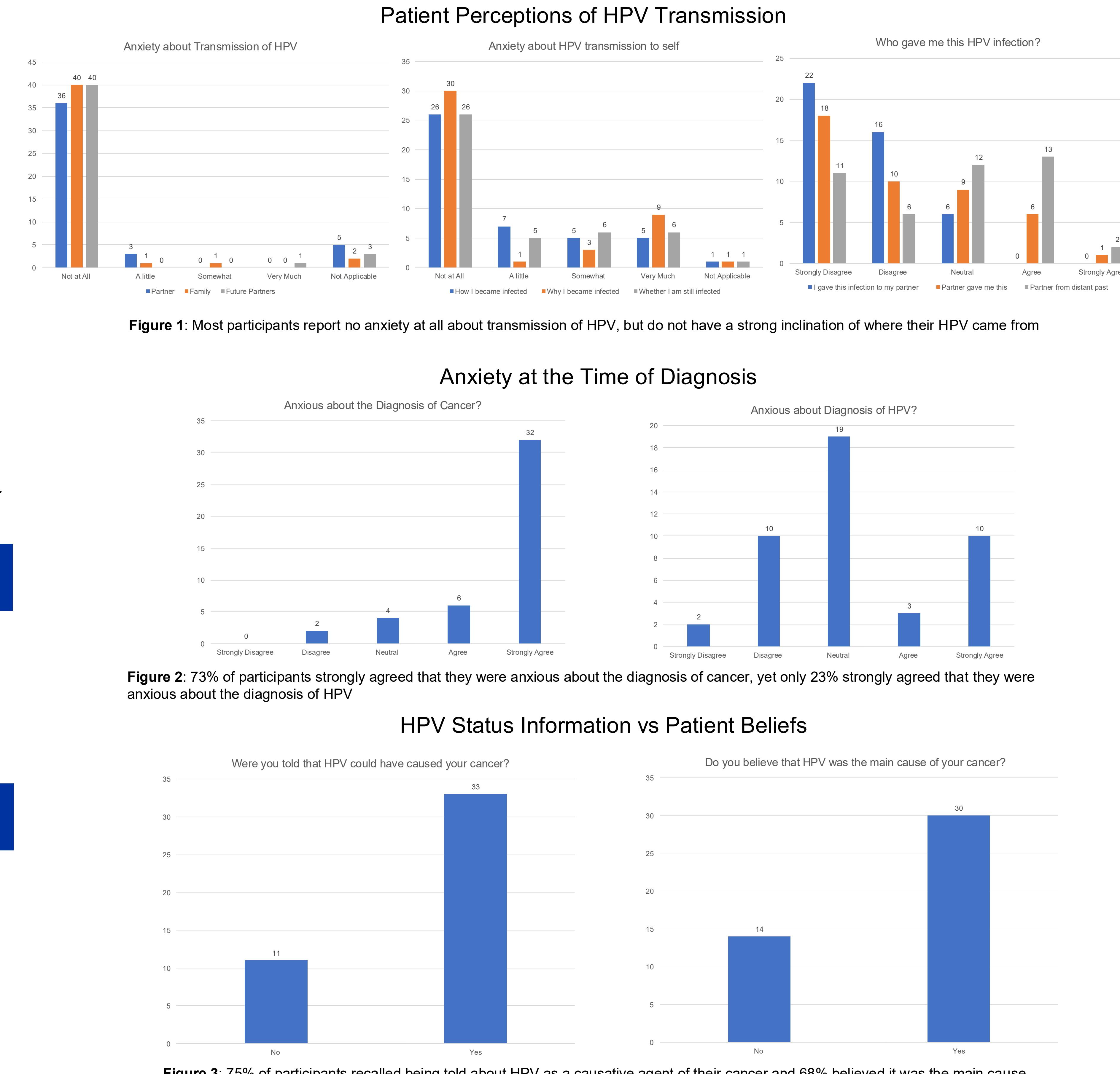


Figure 3: 75% of participants recalled being told about HPV as a causative agent of their cancer and 68% believed it was the main cause

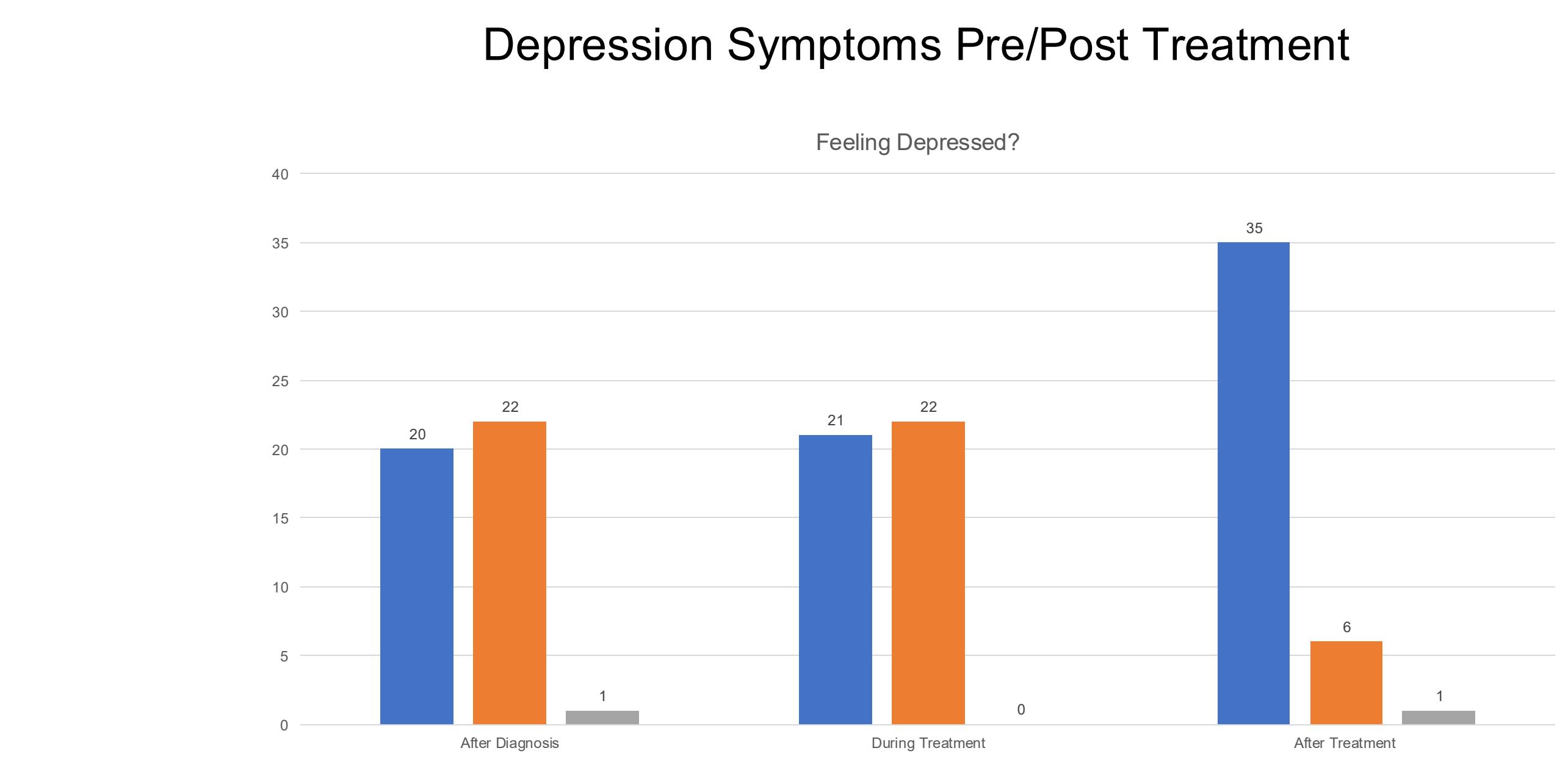


Figure 4: Around half of participants report feeling depressed or feeling down at diagnosis and during treatment, but very few (14%) still feel depressed after treatment

## Role of Physicians in Discussion of HPV+OPSCC

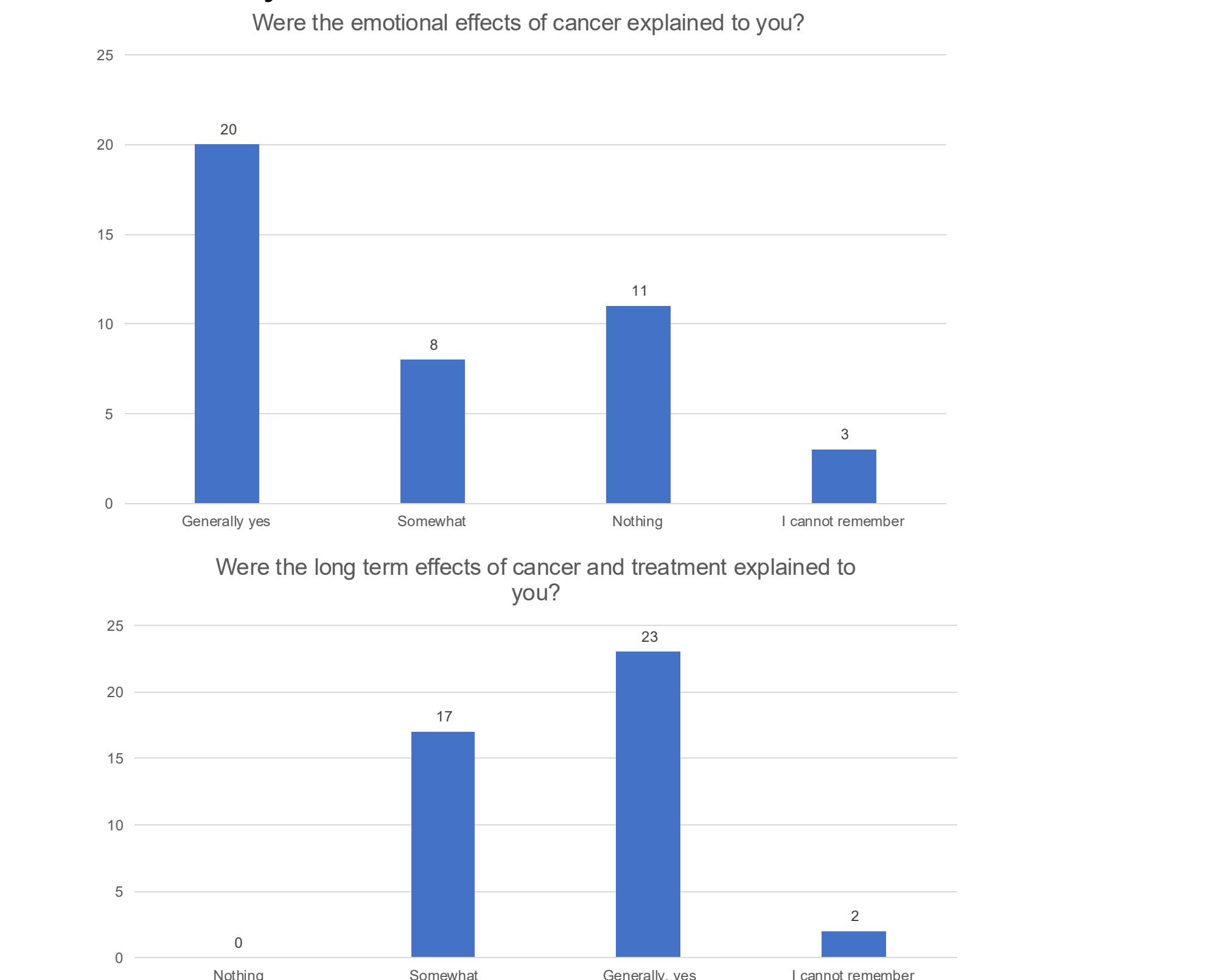


Figure 5: Again, around half of participants feel that physicians effectively explain the long-term effects, but the emotional effects are not completely explained with 26% reporting no explanation

- Participants (81%) continue to rate medical professionals, including board-certified medical oncologists, radiation oncologists, head and neck surgeons as "very helpful" for information about HPV
- Nurses (65%) and printed information from the clinic (58%) are rated as "very helpful" for information
- Only 40% of participants rated the internet as very helpful.
- Participants were asked what questions they wish they asked their doctors about their HPV+OPSCC and what kind of questions they searched on the internet
- The most common thread of questions found in the interviews included: "What is HPV", "What caused it", "treatment side effects" and "cure rates of HPV+OPSCC"

## CONCLUSIONS

- Knowledge gaps regarding HPV+OPSCC persist among present-day survivors.
- Compared with prior work performed in a metropolitan population a decade ago, patients were more anxious about cancer and relatively less anxious about HPV diagnosis and transmission. Participants continue to heavily rate providers, but less positively rate the internet for answers to questions.
- Participants feel that discussion of the long-term effects of cancer are explained well, through discussion of the emotional effects of cancer could be improved.
- This study supports future work aimed at generating patient-support educational materials and survivorship interventions.

## REFERENCES

- Wu J, Xiao F, Zheng Y, Lin Y, Wang HL. Worldwide trend in human papillomavirus-attributable cancer incidence rates between 1990 and 2012 and Bayesian projection to 2030. *Cancer*. 2021;127(17):3172-3182. doi:10.1002/cnc.33628
- Torabi SJ, Kasle DA, Su-Velez BM, et al. A 2020 Update on Public Awareness of Head and Neck Cancers. *Otolaryngol Head Neck Surg Off J Am Acad Otolaryngol-Head Neck Surg*. 2022;166(2):305-312. doi:10.1177/01945998211006932
- Kentuckiana Health Collaborative. (2023, July 7). Preventing HPV-attributable cancers in Kentucky. Retrieved from <https://khcollaborative.org/preventing-hpv-attributable-cancers-in-kentucky>
- D'Souza G, Zhang Y, Meritt S, et al. Patient experience and anxiety during and after treatment for an HPV-related oropharyngeal cancer. *Oral Oncol*. 2016;60:90-95. doi:10.1016/j.oraloncology.2016.06.009

