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Identifying barriers and facilitators to scalp cooling use through a national survey of the awareness, practice patterns, and attitudes of oncologists toward scalp cooling

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BACKGROUND & PURPOSE

- Scalp cooling therapy (SCT), also known as cold cap therapy, is a technology that can help cancer patients lessen alopecia caused by chemotherapy
- Scalp cooling has been used for decades across Europe; however, its use has been limited in the United States
- We aimed to investigate specific barriers to SCT use by surveying a broad group of oncology providers

METHODS

- A 33-question survey was distributed through ASCO's Research Survey Pool to a nationally representative, random sample of 600 physicians and advanced practice providers in medical oncology, surgical oncology, gynecology, and urology in February 2020
- Reminders were sent every 1-2 weeks and the survey closed in June 2020
- Main outcome measures included oncologists' knowledge of SCT, frequency of initiating conversations about SCT with patients, physician degree of support for the use of SCT, and barriers to provider support of SCT
- Descriptive analyses were calculated, and fisher exact tests and chi-square tests were used to compare associations between healthcare characteristics and SCT knowledge and willingness to recommend the therapy
- P-value of <0.0001 was considered significant

RESULTS

Provider characteristics (N=155)	No.	%
Provider Specialty		
Medical oncologist	118	76.1%
Surgical oncologist	7	4.5%
Gynecologic oncologist	12	7.7%
Urologist	1	0.6%
Advanced practitioner/Other	18	11.6%
Gender		
Male	78	50.3%
Female	77	49.7%
Years Practice Post Residency/Fellowship		
0-10	52	33.6%
11-20	53	34.2%
>20	50	32.3%
Academic versus Private*		
University Hospital	76	49.0%
Community/Private	88	56.8%
Practice Community*		
Urban	100	64.5%
Suburban	60	38.7%
Rural	17	11.0%

Table 1: Demographic characteristics of the providers who responded to survey. The population who responded (n=156) was generally representative of the survey population as a whole (n=600) *could select all that apply

RESULTS (CONTINUED)

- 155 oncologists provided responses (155/600, response rate= 25.8%) (table 1)
- 1.9% had no knowledge of scalp cooling, 45.2% were aware of scalp cooling but were not very familiar with it, and the remaining 52.9% were very familiar with it
- While 60% of providers reported being in favor of scalp cooling always/most of the time, only 25.8% initiated discussions about SCT "all or most of the time"
- Providers who reported being very familiar with SCT, those who had read literature in the past two years about SCT, or those who worked at institutions with machine scalp cooling systems were significantly more likely to initiate a discussion about SCT "all or most of the time" (p <0.0001) (figure 1)
- Providers who treated breast cancer were more likely to initiate discussions "all or most of the time" than those who treated other types of cancer, including gynecologic, sarcoma, lymphoma, genitourinary, lung, testicular, prostate and CNS cancer (p <0.0001)
- There was no statistically significant difference between gender and practice community of providers and their rate of initiating conversations with patients about SCT

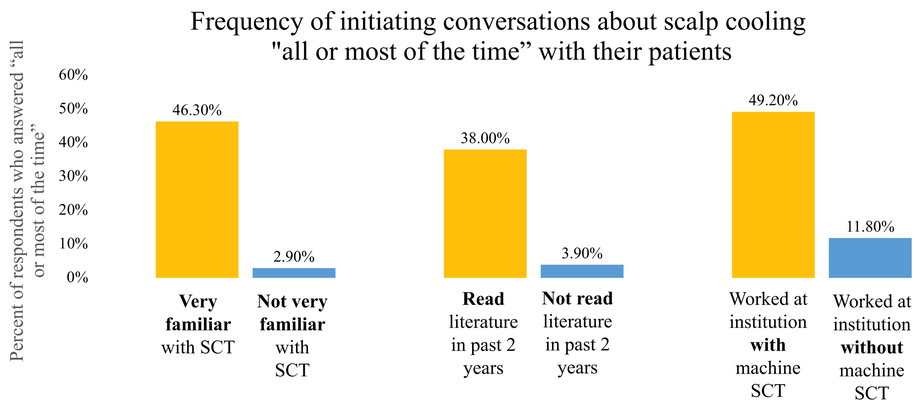

Figure 1: Frequency of initiating conversations "all or most of the time" about SCT was significantly associated with being very familiar with SCT, having read literature about SCT in the past 2 years, and having worked at an institution with machine SCT (p<0.0001)

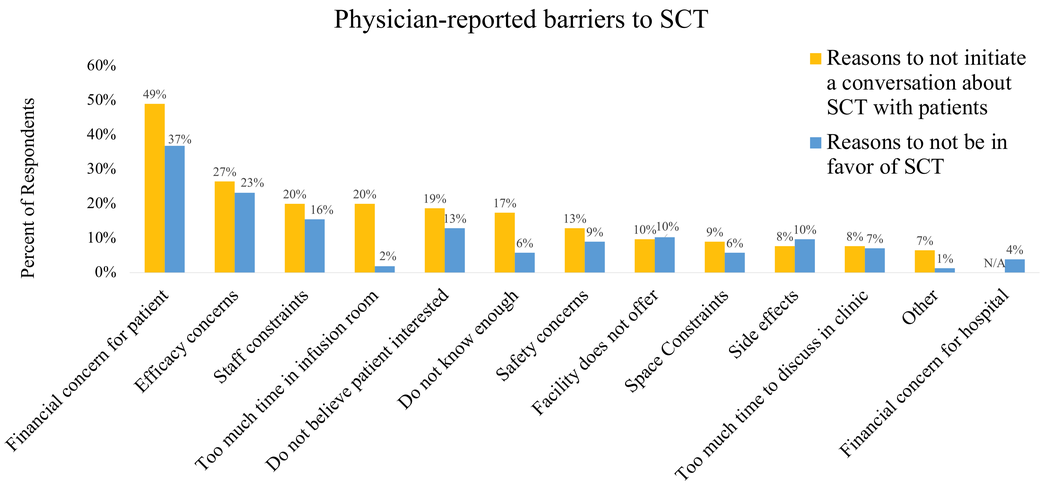

Figure 2: Physicians were asked to choose up to three barriers to initiating conversations about SCT with patients and up to three reasons for not being in favor of SCT. The most common choices were financial concerns and efficacy concerns

DISCUSSION

- To our knowledge, this is the largest and most comprehensive national survey of medical oncologists, urologists, gynecologic oncologists and surgical oncologists about physician perspectives, attitudes, and practice patterns regarding SCT
- We found that the majority of providers surveyed felt that patients should be educated about the option of scalp cooling but the rate of initiating conversations on SCT by these providers was low
- The type of cancer a provider treated influenced the rate of initiating conversations with patients about SCT
- Providers more familiar with scalp cooling, either through experience, exposure to current literature, or working at an institution that provides machine scalp cooling systems were more likely to initiate conversations with patients on scalp cooling and to support the use of SCT
- These findings suggest that provider knowledge of and access to scalp cooling significantly influences the advice given to patients with regard to SCT

CONCLUSION

- This study identified provider-specific barriers to broader implementation of SCT
- Based on our findings, an emphasis on increasing provider familiarity with and education on scalp cooling could have a significant impact on patients being offered this modality
- Our findings also highlight the need to increase financial support options for patients who wish to use SCT

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