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Barriers to Head and Neck Cancer Treatment in Rural Populations

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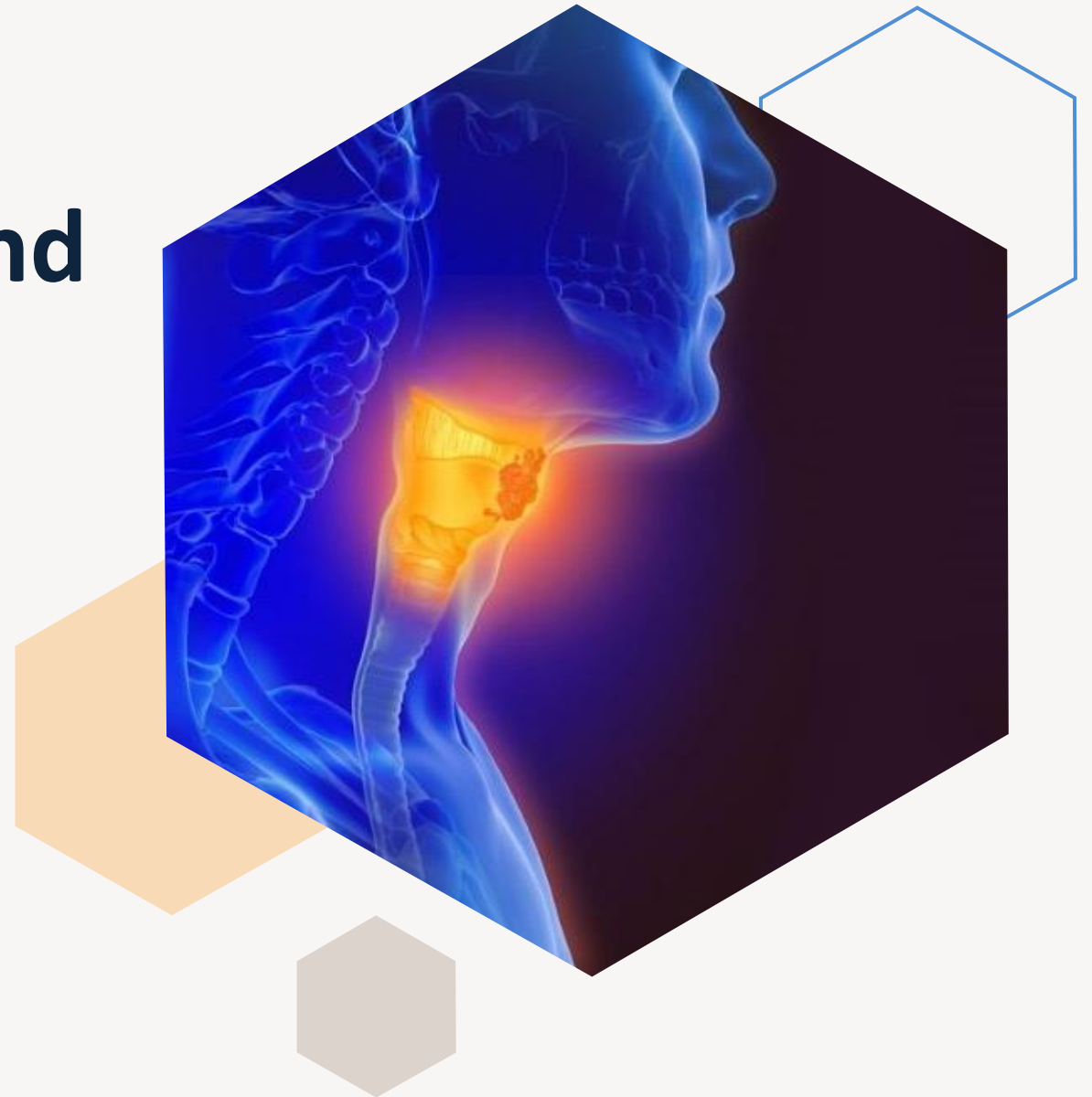
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Barriers to Head and Neck Cancer Treatment in Rural Populations

Amy Chang, University of Vermont- CT Campus

Dr. Schedgick-Davis, Dr. Auerbach

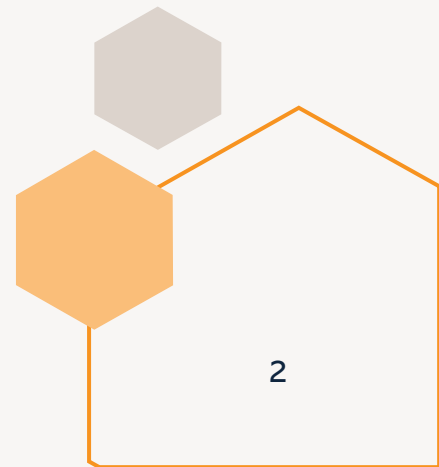
November 2022



Problem Identification

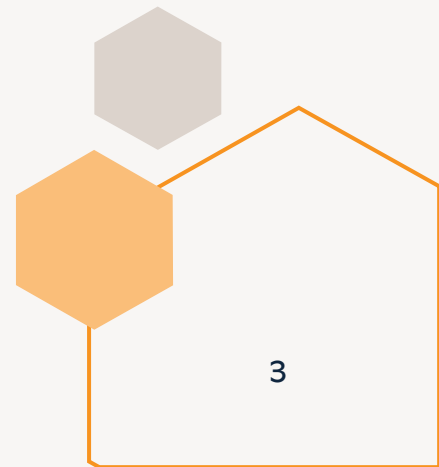
AHEC Focus Area: Medical Practice Transformation

- Head and Neck cancer (HNC) patients have unique outcomes and resource needs. They often experience debilitating speech, nutrition, respiratory, and psychological problems, requiring a multidisciplinary team.
- Additionally, they also require more support in terms of alcohol and tobacco support, whether that be an addiction medicine specialist or a support group.
- The coordination of these specialists is difficult in a rural setting with limited resources.
- Furthermore, HNC is more prevalent in developing countries and rural populations due to use of known etiological factors like tobacco and alcohol.¹
- The combination of high prevalence and low resources in rural populations may lead to suboptimal treatment and worst outcomes.



Public Health Cost

- HNC is one of the common malignancies affecting people worldwide. Approximately 650,000 HNC cases and 380,000 HNC-related deaths are reported annually worldwide.¹
- Despite many public health advances, there are groups that continue to be afflicted by HNC. This includes persons with lower socio-economic status, lower levels of education, and racial and ethnic minorities.
- Due to the multimodal treatment required for HNC, there is significant long term financial burden, significant out-of-pocket costs, an increased inability to work, and lower reported financial well being.³
- Drugs, medical aid, home care, and supplementary medical services are typically not covered. Furthermore, travel and accommodation costs add an additional burden for rural patients that live far from a cancer care center.
- Patients with lower income before their diagnosis, and those who lose income because they are unable to work due to cancer, are at further increased risk of financial toxicity.⁴





Community Perspectives

What was the biggest barrier in your care?

“The hardest part was returning back to life after the treatment was done. I had to miss several days of work for treatment and I was also embarrassed to return to work. I did not want to appear sick to my family, friends, and coworkers.”

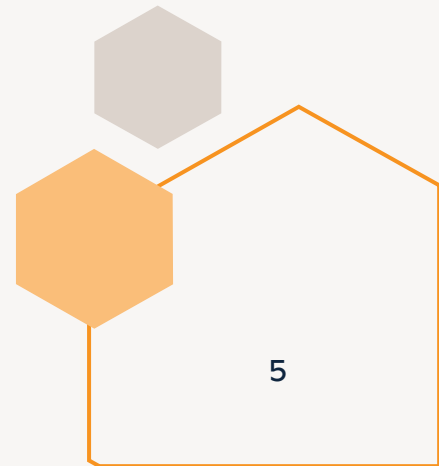
*-Brian *****
Patient*

“I had a hard time managing it all. It was a lot. From all the things you have to do before surgery to all the things after, it was difficult to manage. I still have trouble putting it all together.”

*-Deborah *****
Patient*

Intervention and Methodology

- Literature review of barriers in achieving multidisciplinary treatment in rural areas
- Interview community members perspectives to qualitatively analyze the barriers
- Administer survey to rural patients in Vermont to assess how barriers affect care
- Present findings to primary care physicians, oncologists, and otolaryngologists
- Create dot phrase to address findings from survey, interviews, and literature review



Proposed Survey

Barriers Assessment Form

* Required

How satisfied are you with your care? *

	1	2	3	4	5	
Not very	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very much

On a scale of 0-5, how much has your health been negatively impacted by this barrier? *

0 = No impact 5 = Heavily impacted

	0	1	2	3	4	5
Lack of coordinated care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Language	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transportation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Financial Cost	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability of Care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of Care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What is your biggest barrier in accessing care? *

Your answer _____

Proposed Dot Phrase

.hncrural

The following _____ was discussed with the patient
_____ was identified as a barrier

The patient was referred to (care coordinator) and given
handout on resources available

Include as a drop down menu:

- Lack of coordinated care
- Language
- Transportation
- Financial Cost
- Availability of Care
- Quality of Care
- Employment

Responses

- Most rural patients identified transportation, financial cost, and lack of coordinated care as a major limitation to adhering to their treatment plan
- Most providers did not discuss barriers to treatment plan adherence
- Most patients would not discuss financial barriers, if it was not brought up by providers



Evaluation

- Measure treatment compliance, financial burden, and overall satisfaction of care through patient surveys before and then at 6 months and 1 year after implementation of dot phrase

Limitations

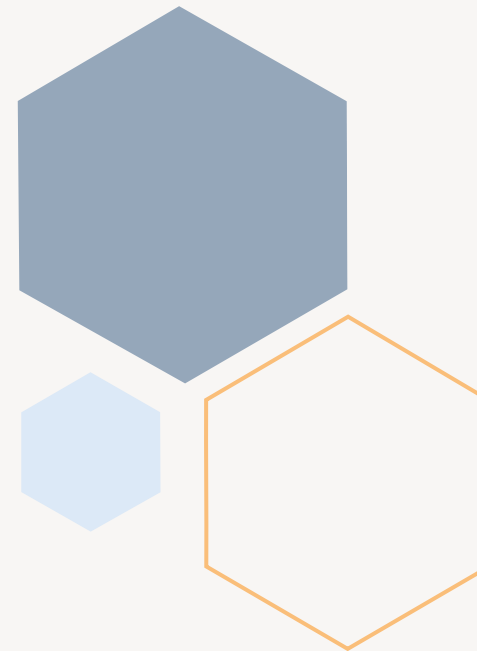
- Limited number of interviews and patients as HNC rates are relatively low
- Vermont demographic is limited to rural white population and does not address the needs of black rural patients.
- Furthermore, it would be ideal to address rural communities in other countries where prevalence of HNC is higher due to increased tobacco and alcohol use

Future interventions/projects

- Employ a head and neck nurse navigator, who would be responsible for coordinating multidisciplinary care and addressing barriers in rural population. Assess outcomes after implementation.
- Increase financial assistance in HNC treatment by creating a brochure of resources available or employ a financial advisor as part of the multidisciplinary team.
- Create an avenue for patients to ask questions about cancer treatment. This can be an app or through incorporating dot phrase for physicians.

References

1. Trivedi NP, Trivedi P, Trivedi H, Trivedi S, Trivedi N. Optimizing multimodality treatment for head and neck cancer in rural India. *Indian J Cancer*. 2012 Apr-Jun;49(2):225-9. doi: 10.4103/0019-509X.102917. PMID: 23107975.
2. Bray F, Ferlay J, Soerjomataram I, Siegel RL, Torre LA, Jemal A. Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA Cancer J Clin*. 2018 Nov;68(6):394-424. doi: 10.3322/caac.21492. Epub 2018 Sep 12. Erratum in: *CA Cancer J Clin*. 2020 Jul;70(4):313. PMID: 30207593.
3. Kim L, King T, Agulnik M. Head and neck cancer: changing epidemiology and public health implications. *Oncology (Williston Park)*. 2010 Sep;24(10):915-9, 924. PMID: 21138172.
4. Hueniken K, Douglas CM, Jethwa AR, Mirshams M, Eng L, Hope A, Chepeha DB, Goldstein DP, Ringash J, Hansen A, Martino R, Li M, Liu G, Xu W, de Almeida JR. Measuring financial toxicity incurred after treatment of head and neck cancer: Development and validation of the Financial Index of Toxicity questionnaire. *Cancer*. 2020 Sep 1;126(17):4042-4050. doi: 10.1002/cncr.33032. Epub 2020 Jun 30. PMID: 32603521.



Consent Agreement

Thank you for agreeing to be interviewed. This project is a requirement for the Family Medicine clerkship. It will be stored on the Dana Library ScholarWorks website. Your name will be attached to your interview and you may be cited directly or indirectly in subsequent unpublished or published work. The interviewer affirms that he/she has explained the nature and purpose of this project. The interviewee affirms that he/she has consented to this interview.

Consented

Name: Brian *****

Name: Deborah *****