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Effect of Body Mass Index on Cutaneous Malignancy Screenings at Dermatology Visits

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**Data Availability**

The data associated with this publication are not available for this reason: N/A

## Introduction

Dermatologists perform total body skin exams (TBSEs) for 81% of new patients.<sup>1</sup> To date, there exists little research on the effect of body mass index on the likelihood of receiving TBSEs. Many factors including implicit bias regarding obesity, mobility issues, and patient preferences may affect the care patients with obesity receive and may have impacts on health outcomes such as rates of missed skin cancers.<sup>2</sup>

## Hypothesis

TBSEs are performed less frequently in people with obesity.

## Methods

- 329 patients over 18 years old who received a TBSE in 2019 performed by a dermatologist were included
- The frequency of total body skin exams as well as the rates of melanoma and non-melanoma skin cancers were compared for three BMI categories
  - BMI 18.5-24.9 (normal): 111 total
  - BMI 25-29.9 (overweight): 112 total
  - BMI >30 (obese): 106 total
- Data were analyzed using chi-square

# Effect of Body Mass Index on Cutaneous Malignancy Screenings at Dermatology Visits

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## Results

The table below shows the chi-square values when comparing the three BMI categories for receiving a total body skin exam as well as history of melanoma and nonmelanoma skin cancers.

	Chi-Square Value
Total Body Skin Exam	0.358
History of Nonmelanoma Skin Cancer	0.389
History of Melanoma	0.388

## Discussion

Health care disparities including less patient-centered communication and less respect from healthcare providers have been demonstrated in the setting of obesity. Obesity is disproportionately associated with certain skin conditions such as acanthosis nigricans, acrochordons, and keratosis pilaris.<sup>3</sup> It is important that patients with higher BMIs receive TBSEs as frequently as patients with lower BMIs. The effect of obesity on dermatologic care has not been evaluated.

In our pilot data, there is no statistically significant difference in the frequency of total body skin exams or rates of melanoma and non-melanoma skin cancers amongst the three BMI categories.

## Future Directions

- Ongoing efforts to complete data abstraction will yield a more robust dataset
- Evaluation of stage of skin cancer at time of diagnosis

## References

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