

RISK BASED MELANOMA SCREENING IN THE PRIMARY CARE SETTING



Stephanie D. Oetting BSN, RNFA, CNOR
 University of Missouri Sinclair School of Nursing
 Shelly Thomas, DNP, APRN, FNP-BC, CLNC, DNP Committee Chair
 Miriam Butler, DNP, NP-C, FNP-BC, DNP Committee Member
 Amy Harrell, MSN, APRN, FNP-BC, DNP Committee Member



INTRODUCTION

This is a quality improvement project aimed at the implementation of the SAMScore screening questionnaire as a part of the intake process in the primary care setting to improve identification of patients at high risk for skin cancer, specifically melanoma.

Background and Significance

- Skin cancer is the most prevalent form of cancer in the United States (U. S.) (Centers for Disease Control and Prevention [CDC], 2015).
- The incidence and mortality rate for other leading causes of cancer (breast, prostate, and colorectal) has decreased, and the incidence and mortality for melanoma of the skin continues to increase (Howlander et al., 2016).
- The cost of treating skin cancer in the United States is \$8.1 billion annually (Guy Jr., Machlin, Ekwueme, & Yabroff, 2015).

Literature Review

- The USPSTF (2015) concluded there is insufficient evidence to support total body skin examinations (TBSE) as a method of skin cancer screening for the general population.
- Population based screenings have been found effective in reducing melanoma mortality in Schleswig-Holstein, Germany (Katalinic et al., 2012; Kornek et al., 2012).
- Screening by physicians can lead to increased rates of thinner melanomas positively affecting patient outcomes (Kovalyshyn et al., 2011).
- Barriers exist in performing TBSE and include time constraints, competing comorbidities, and patient embarrassment (Oliveria et al., 2011).
- The SAMScore is a validated assessment tool providing healthcare providers a method of identifying patients with an increased lifetime risk of melanoma who could benefit from a TBSE (Queveux et al., 2012; Davies et al., 2015).
- To detect a new case of melanoma using the SAMScore, it is necessary to screen 11.54 times fewer patients when compared to non-targeted screening (Queveux et al., 2012).

PICOT

In patients presenting to a Midwestern primary care clinic (P) how does selective targeted screening using the SAMScore assessment tool among male and female patients 20 years and older (I) compared to current skin cancer screening standards (C) increase the number of patients screened for skin cancer risk (O) over a two-month period (T).

Objectives

1. Skin cancer screening rates among patients 20 years and older presenting to a Midwestern primary care clinic will increase by 5% from the clinic's current screening rates after the implementation of the SAMScore assessment tool as a part of the intake process.
2. Thirty-five percent of patients identified at increased risk will receive an appropriate intervention (TBSE, dermatology referral/follow up, or patient education).

MATERIALS AND METHODS

Methods

- Midwestern primary care clinic consisting of three providers who see 15-20 patients a day.
- Three-month retrospective chart review to establish baseline skin cancer screening methods
- Prospective data collection for two months after the implementation of the SAMScore to determine if there was a difference in screening rates.

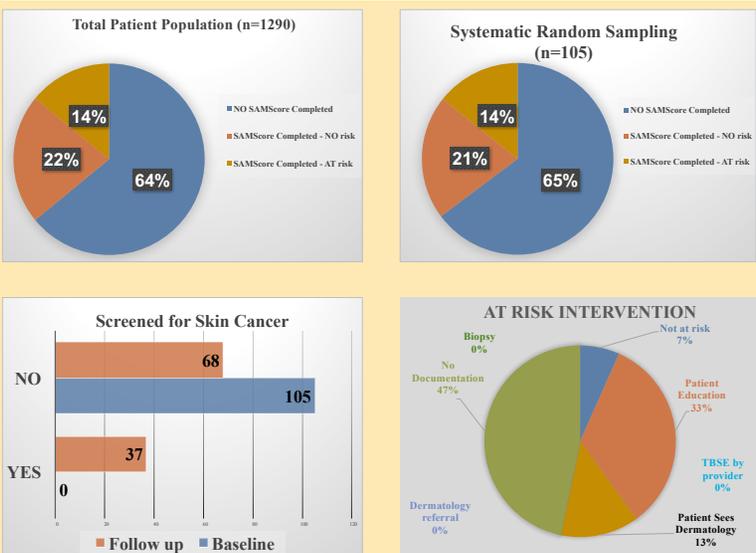
Intervention

- SAMScore assessment tool (Approval to use the SAMScore assessment tool was obtained from the SAMScore Department of Dermatology, Nantes France).
 - SAMScore completed by the intake staff and results conveyed to provider.
 - Patients identified at increased risk received an appropriate intervention (patient education, TBSE by provider, biopsy as indicated, dermatology referral and follow up).

Measures

- 5% margin of error, 95% confidence interval, a population size of 5000 with a 7.5% response distribution, a minimum of 105 charts at baseline and follow-up were required for review (Raosoft®, 2004).
- The primary outcome variable was skin cancer screening rates among patients 20 years and older.
- The secondary outcome variable was an appropriate intervention/treatment for individuals identified at increased risk for melanoma.
- Descriptive statistics were used to describe patient demographics.
- Inferential statistics using Chi-square of Independence was used to analyze nominal level data to determine if the implementation of the SAMScore assessment tool had a positive impact on the number of patients identified at risk, increasing the overall skin cancer screening in the primary care setting.
- The phi coefficient (ϕ) was used to describe the magnitude of effect from the intervention with values, .10, .30, and .50 corresponding to small, medium, and large effects, respectively. Independent t-test was used to analyze ratio data. IBM SPSS Statistics version 24 (Chicago, IL) was used for data collection and statistical analysis. The level of significance was set at $p \leq .05$.

RESULTS



Contact info: sdog25@mail.missouri.edu
<http://nursing.missouri.edu/index.php>

RESULTS

Objective 1: MET

- During the implementation period, there were 1290 patient encounters that met inclusion criteria, and 464 SAMScore questionnaires were completed resulting in a 35% completion rate, and 39% ($n = 181$) were identified to be at an increased risk for developing melanoma. Systematic random sampling of 105 charts showed a SAMScore completion rate of 35% ($n=37$), and 40% ($n = 15$) of those patients were identified to be at an increased risk. There was no documented screening for skin cancer risk in the baseline group ($n=0$), and 35.2% ($n=37$) of the follow up group received screening for skin cancer risk.
- There was a statistical significance between baseline and follow up groups, and the implementation of the SAMScore had a large clinically significant effect, $\chi^2(1) = 44.9, p = .000, \Phi = .46$.

Objective 2: MET

- Of the 37 completed SAMScore, 15 participants were found to be at risk, and of the at-risk participants 47% ($n = 7$) had no documentation of an intervention, 33.3% ($n = 5$) received patient education, 13.3% ($n = 2$) sees dermatology, and 6.7% ($n = 1$) was documented as not at risk.
- Of the participants at risk 46.6% received an appropriate intervention

CONCLUSIONS

- Patients were 2.5 times [OR 2.54] more likely to be screened for skin cancer risk after the implementation of the SAMScore.
- The utilization rate of the SAMScore was 35%, and 47% of patients identified at risk received an appropriate intervention.
- It was recommended to the stakeholders to continue to utilize the SAMScore as a method of identifying individuals at increased risk for melanoma.

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