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Distance Learning and Spaced Review with ECHO to Compliment Dermoscopy Training for Primary Care

Elizabeth Seiverling

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Background

Prior to 2019, very few primary care providers (PCPs) at Maine Medical Center (MMC) were formally trained in dermoscopy. To address this training gap, a multimodal curriculum was developed. The majority of the dermoscopy training is based on the Triage Amalgamated Dermoscopic Algorithm (TADA), which was designed for novice dermoscopists.

We wanted to build on the TADA workshop with spaced review and distance learning using Extension for Community Health Outcomes (ECHO).

Methods

- **Population**: Residents, faculty, advanced practice providers in Family Medicine or Internal Medicine at MMC or MaineHealth.
- **Dermoscopy Curriculum Implementation**: 8 live/interactive dermoscopy workshops using TADA; dermoscopy lectures on specific types of skin cancer, nevi, inflammatory conditions, and skin infections; web-based case review (sites.psu.edu/dermoscopy); simulation lab sessions to optimize dermatoscope operation; clinical dermatology rotations with experienced dermoscopist; 7 dermatology/dermoscopy ECHOs.
- **Curriculum Evaluation**: 3 quizzes (pre-intervention, post-TADA, post-ECHO) of 30 dermoscopic images; pre/post-intervention surveys to evaluate dermoscopy use.

Aims

1. To determine the impact the addition of a distance learning platform has on clinical **dermoscopy use**.
2. To evaluate **dermoscopic image identification** (knowledge retention) following the addition of distance learning via ECHO to a traditional TADA dermoscopy workshop.

Results

Table 1. Participant characteristics*

Variable	Coding	N (%)
Overall		27 (100.0)
Sex	Male	8 (29.6)
	Female	19 (70.4)
Age	21-30	13 (48.1)
	31-40	9 (33.3)
	41-50	3 (11.1)
	51-60	2 (7.4)
Training	MD/DO	27 (100.0)
	Attending	9 (33.3)
	Resident	17 (63.0)
	Nurse Practitioner	1 (3.7)
Specialty	Family Medicine	24 (88.9)
	Internal Medicine	3 (11.1)
Years evaluating skin lesions	≤ 10	18 (66.7)
	10+	3 (11.1)
Formal training in dermoscopy?	No	23 (85.2)
	Yes	3 (11.1)
Access to a dermatoscope?	No	0 (0.0)
	Yes	27 (100.0)
Do you use a dermatoscope?	No	1 (3.7)
	Yes	26 (96.3)
If yes, how often?	Daily	1 (3.7)
	2-3x/week	4 (14.8)
	1x/week	9 (33.3)
	2-3x/month	5 (18.5)
	1x/month	5 (18.5)
	<1x/month	2 (7.4)
Most beneficial learning method (Scale of 1-5; 1 = most preferred)	ECHO	2 (7.4)
	Simulation lab	1 (3.7)
	Clinical rotations	7 (26.0)
	Live workshop	16 (59.3)

*Not all participants answered every question on the survey.

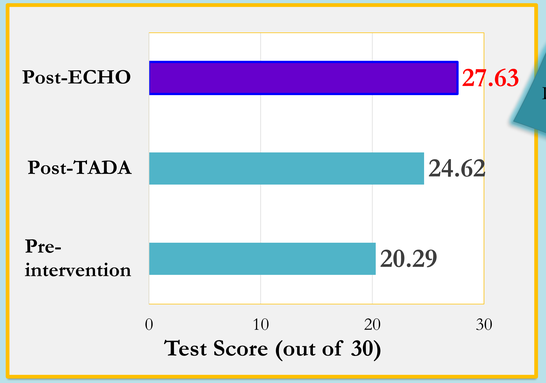


Figure 1. Mean test scores

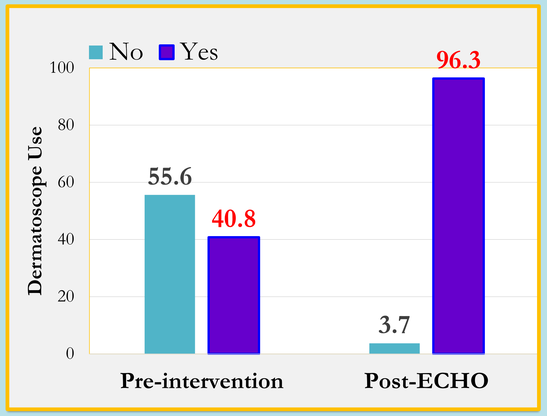
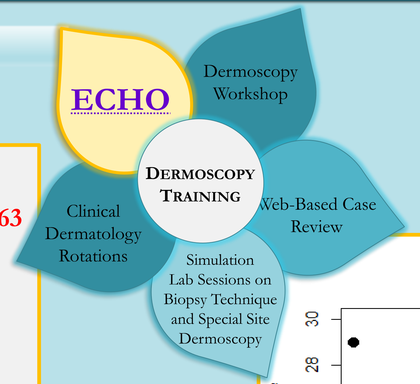


Figure 2. Dermatoscope use



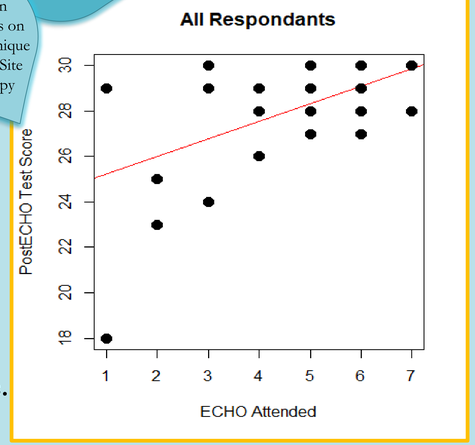


Figure 3. Attendance vs. test scores

Conclusion

Spaced review and distance learning with Project ECHO resulted in **increased dermoscopy use**, and knowledge retention as evidenced by **improved identification** of benign and malignant skin growths.

★ **Distance learning platforms such as Project ECHO are viable options for ongoing dermoscopy training for primary care and can serve as a model for other institutions, especially with social distancing restrictions.**