

Project ECHO - Dermatology at the University of Utah Assessing Quality and Effectiveness

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INTRODUCTION

Dermatology is a vital component of primary care practice with over one-third of primary care patients having a skin condition.¹ However, primary care physicians and residents typically lack formal training in dermatology-related skin conditions.²

Extension for Community Healthcare Outcomes (ECHO) is a case-based educational and training system linking specialists with rural and underserved primary care providers via videoconferencing technology. The University of Utah Department of Dermatology has launched ECHO for international (Uganda) audiences.

ECHO has been shown to be an effective intervention in many medical specialty areas but the effectiveness of this intervention for dermatology education is uncertain.

METHODS

- To recruit clinicians, a collaboration with the World Accelerated Medically Trained Clinicians (AMTC) network is established
- Self-study modules and Kodachrome reviews are used to teach individuals about specific dermatology conditions
- Monthly live case sessions are conducted
- At the start of these ECHO sessions, participants complete a survey to assesses practice type and lecture effectiveness
- After the ECHO sessions, participants complete the same survey
- Average survey results are calculated for each session

Epidermis **Comprised of layers of maturing keratinocytes* Dermis **Contains blood vessels and the eccrine (sweat) glands, hair follicles, sebaceous glands **Subcutaneous tissue* **Contains blood vessels and the eccrine (sweat) glands, hair follicles, sebaceous glands **Subcutaneous tissue* **Contains fat**

Figure 1. Example of a self-study slide



RESULTS

Table 1. Survey Questions

- Q1. Identifying and treating this skin condition
- Q2. Prescribing the appropriate medication for this skin condition
- Q3. Suggesting evidence-based ways to care for this skin condition
- Q4. Appropriately addressing patients' concerns with respect to this skin condition
- Q5. Helping my patients understand how to use medications for this skin condition
- Q6. Helping my patients with this skin condition understand the importance of using their medications
- Q7. Apply what I've learned in this ECHO dermatology session to treat those in my care
- Q8. Serve as the local expert in my clinic for this skin condition
- Q9. Serve as the local expert in my part of the state for this skin condition

Table 1. List of survey questions

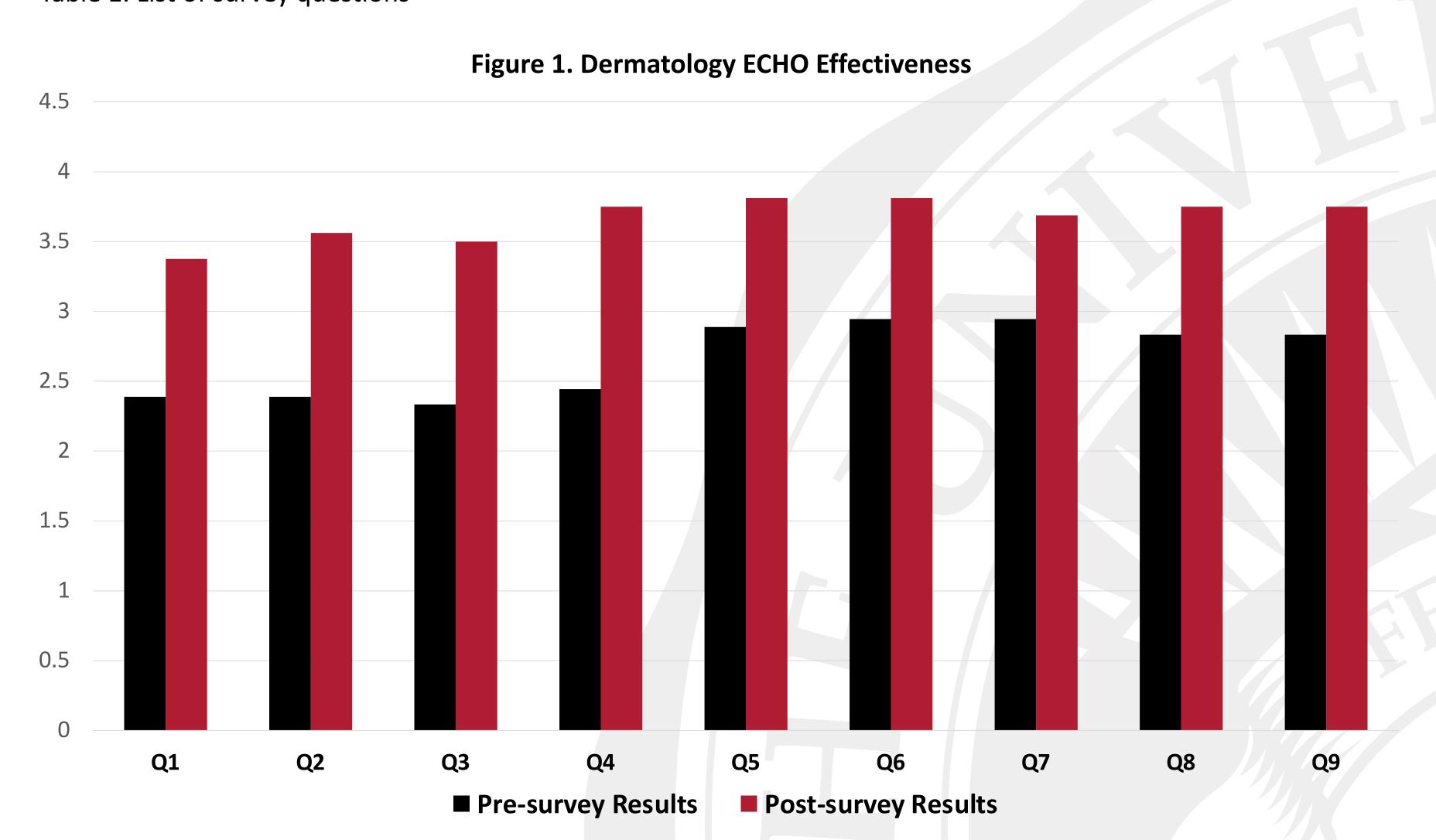


Figure 2. Outlines the average confidence of participants for each question. Each question identifies confidence as; 1. Not at all confident, 2. Slightly confident, 3. Somewhat confident, 4. Very confident

- 2 ECHO sessions have been undertaken
- 8 participants (session 1) and 10 participants (session 2) completed both the pre-survey and postsurvey questionnaire
- Of the 9 questions asked, all 9 showed improvement from before the session to after the session
- Q4 "Appropriately addressing patients' concerns with respect to this skin condition" showed the largest improvement (1.3), with Q2 (1.2) and Q3 (1.2) following close behind

DISCUSSION

The preliminary results of this study suggest that Dermatology ECHO is an effective tool for improving Ugandan clinical officers' confidence in caring for dermatology patients, specifically;

- Identifying and treating skin conditions
- Prescribing appropriate medications
- Suggesting evidence-based ways to care for skin conditions
- Helping patients understand how to use medications
- Helping patients understand the importance of using medications
- Applying what was learned in ECHO to treat patients
- Serving as the local expert in their clinic
- Serving as the local expert in their part of the state

However, more data is needed to understand the effectiveness of training clinicians through Dermatology ECHO.

FUTURE DIRECTIONS

- Dermatology ECHO will continue for participants in Uganda with quality and effectiveness will continue to be measured
- Dermatology ECHO started regionally in Utah in October 2022 (1 session completed)
- Similar research will be conducted to measure Dermatology ECHO effectiveness for regional primary care providers

REFERENCES

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