

mor groups. Moreover, in most patients, only a single lesional specimen was available, possibly underestimating the prevalence of the respective PyVs. Finally, we did not evaluate nonlesional skin of the patients with lymphoma. In conclusion, our observations argue against a pathogenetic role of cutaneous PyVs in primary cutaneous lymphoma.

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## ONLINE FIRST

### Assessing Dermatologists' Ability to Deliver a Novel Intervention to Improve Patients' Use of Sun Protection: The ABC Method of Physician-Patient Communication

Patients are often aware of the benefits of using sun protection, but this does not necessarily translate into positive behavioral outcomes. This disconnect can be a source of frustration for many dermatologists, who often emphasize the importance of proper sun protection to their patients. Research has shown that education alone is not an effective strategy to change behavior, especially among less motivated patients. However, communication that incorporates the principles of motivational interviewing (MI), a patient-centered approach that uses empathic communication, has been successful in improving a variety of health-related behaviors.<sup>1</sup> While MI is often effective, most physicians are not familiar with this or similar communication techniques.<sup>2</sup> Furthermore, most dermatologists have limited time to interact with patients during an office visit, making it difficult to engage in lengthy conversations about sun protection.

Research suggests that training physicians to express empathy to their patients is a promising area for further research with potential to improve patient care.<sup>3,4</sup> A recent study found that dermatologists who were shown an example of physician-patient conversations about sun protection that used MI principles felt favorably toward the technique and thought it would be a useful communication tool.<sup>5</sup> Based on these findings, we have developed the ABC (addressing behavior change) method as a communication tool for dermatologists to use with their patients to enhance the use of sunscreen. The ABC method is based on the principles of MI and consists of the following components: (1) assess UV risk; (2) assess sunscreen use; (3) assess the obstacles to using sunscreen; (4) facilitate removal of the obstacles to sunscreen use; (5) assess other methods of sun protection; and (6) summarize patients' motivations and ideas for improved sunscreen use. On average, the ABC method takes 2 to 3 minutes to deliver and was designed for use during a routine office visit that includes a skin examination. The ABC method is delivered in the context of a collaborative conversation with the patient rather than as a direct instruction.

The focus of the current study was to teach a sample of dermatologists the ABC method and assess their ability to deliver it with fidelity as well as their sustained use and satisfaction with using it over a 6-month period.

**Methods.** Participants consisted of 8 dermatologists at a medium-sized northeastern university teaching hospital. Participants were invited based on their availability during the mandatory training sessions and the appropriateness of their patient population (eg, adults receiving skin examinations). Participation was voluntary, and dermatologists were assured that whether or not they

**Table 1. Fidelity of the Delivery of the ABC Method Components Across Time<sup>a</sup>**

Core Components of ABC Method	Baseline (n=24) <sup>b</sup>	Immediately After Training (n=25) <sup>b</sup>	3-mo Follow-up (n=25) <sup>b</sup>	6-mo Follow-up (n=23) <sup>b</sup>
Assess UV risk	0	21 (84)	23 (92)	23 (100)
Assess sunscreen use	7 (29)	25 (100)	22 (88)	21 (91)
Assess obstacles to sunscreen use	1 (4)	20 (80)	16 (64)	17 (74)
Facilitate removal of obstacles	0	20 (80)	13 (52) <sup>c</sup>	15 (65) <sup>c</sup>
Assess other methods of sun protection	7 (29)	20 (80)	20 (80)	22 (96)
Summarize conversation	0	25 (100)	13 (52)	17 (74)

Abbreviation: ABC, addressing behavior change.

<sup>a</sup>All data reported as number (percentage) of patient observations.

<sup>b</sup>Number of patient observations during the time period.

<sup>c</sup>The percentage of participants in this category was somewhat low compared with other ABC components. In many cases, if patients presented challenging obstacles or were not willing to use sunscreen, physicians focused on other methods of sun protection rather than escalating conflict, which is consistent with motivational interviewing technique.

**Table 2. Sustained Use and Dermatologists' Satisfaction With the ABC Method<sup>a</sup>**

Participant Use and Satisfaction	3-mo Follow-up	6-mo Follow-up
Use of the ABC method with patients, on average <sup>b</sup>	66.3	74.5
Felt positive toward ABC <sup>c</sup>	24 (100)	24 (100)
Felt ABC enhanced communication <sup>c</sup>	24 (100)	24 (100)
Comfortable using ABC <sup>c</sup>	24 (100)	24 (100)
Intention to continue using ABC <sup>c</sup>	24 (100)	24 (100)

Abbreviation: ABC, addressing behavior change.

<sup>a</sup>Unless otherwise indicated, data are reported as number (percentage) of participants.

<sup>b</sup>Frequency was assessed by asking dermatologists the percentage of the time that they used the ABC method.

<sup>c</sup>Satisfaction items were rated on a 4-point scale ranging from "not at all" to "extremely." All positive responses were collapsed for ease of presentation.

agreed to participate, their decision would have no impact on their departmental standing. Initially, 12 dermatologists met the inclusion criteria. Of those, 10 agreed to participate, 1 withdrew owing to a conflict, and 1 reported not using the intervention throughout the course of the study and so was not included in the analyses.

Participants completed 6 self-report surveys to assess frequency of using the ABC method and satisfaction with the method. To assess fidelity, participating physicians were audio recorded delivering the intervention during patient visits at 4 time points throughout the study (at baseline, immediately after training, and at 3- and 6-month follow-up visits). Participants were compensated with a \$10 gift card for each of the 6 monthly progress surveys. The research protocol was approved by the Pennsylvania State University institutional review board.

Each participant attended two 1-hour training sessions to learn the ABC method after baseline data were collected. The first session was delivered in a group format during the departmental meeting of the weekly journal club. Didactic information was presented, and participants engaged in practice exercises. Participants were instructed to practice the intervention on their own for a week to learn the components. One week later, during the next journal club meeting, participating physicians engaged in role play

exercises with mock patients. After the training, each physician participant was shadowed by a trainer while delivering the ABC method to actual patients in the clinic. Feedback was provided for at least 3 patients per physician. In addition, participants were given pocket-sized cards listing the intervention components to use as needed. Participants were then asked to use the ABC method with patients over the next 6 months. To assess whether participants successfully learned and delivered the ABC method, patient visits at baseline, immediately after training, and at 3- and 6-month follow-ups were coded for fidelity. A total of 109 sessions were coded over the 4 time points for all 8 participating dermatologists.

**Results.** Across the study, physicians delivered the ABC method with good fidelity (**Table 1**), increased their use of the ABC method, gave uniformly high positive ratings of the ABC method on enhancing communication and comfort, and declared their intention to use the method after the study was completed (**Table 2**).

**Comment.** The present study shows that dermatologists learned and delivered the ABC method of physician-patient communication with good fidelity over a sustained period of time. Dermatologists learned the method during existing educational sessions. Furthermore, using the ABC method did not add length to the office visit. This method was often used as a way to build rapport with patients and replaced conversation that was less relevant to patient behavior. Participating dermatologists also reported high satisfaction with the ABC method and unanimously stated that they intended to use it in the future. Overall, the findings suggest that the ABC method is a feasible way for dermatologists to communicate with patients about sun protection during an office visit. Future studies will examine the ABC method in relation to patient outcomes to determine if this technique trans-

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lates to positive changes in patients' sun-protection behavior and patient satisfaction.

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## COMMENTS AND OPINIONS

### Prevalence of Central Centrifugal Cicatricial Alopecia

I read with interest the recent article in the *Archives* by Kyei et al,<sup>1</sup> which together with that of Olsen et al<sup>2</sup> produced a rare harvest of comparable data on central centrifugal cicatricial alopecia (CCCA). Kyei et al state that our research group's South African studies "found a surprisingly low preva-

lence of CCCA (1.9%) in adults."<sup>1(p909)</sup> This prevalence included male participants<sup>3</sup>; it was 2.7% in the 604 women 18 years or older<sup>3</sup> (and 0% in 574 school girls).<sup>4</sup> Our studies predated the publication of the central scalp alopecia photographic scale.<sup>5</sup> Using a grade of 3 or higher as a surrogate for CCCA, Olsen et al<sup>2</sup> and Kyei et al<sup>1</sup> reported a point prevalence of 5.6% and 17% in 529 and 310 women, respectively.

Factors including true population variation and potential bias can result in different disease measurements. Household study samples are more representative of general populations but prohibitively expensive; hence, the usual compromise use of convenience samples. Olsen et al<sup>2</sup> included 6 sites, divided into 2 groups, and eloquently demonstrated the influence of sampling on disease frequency. Group 1 participants attended a health and beauty symposium and church meetings (CCCA, 5.6%). Group 2 participants attended meetings advertised as hair-related workshops, and, as aptly expressed by the authors, subjects with hair loss were "overrepresented [16.2%]."<sup>2(p909)</sup>

Our group's studies included multiple sites: 4 schools<sup>4</sup> and 5 churches and 4 community groups.<sup>3</sup> Including 1 or 2 sites would have produced very different results. For example, the adult group's mean ages (24.5 years vs 44.0 years) influenced prevalence (0.6% vs 4.9%, respectively).<sup>3</sup> However, age was not the only factor in that the group with the oldest participants (mean age, 77 years) did not have the highest prevalence (3.9%)—possibly the result of the traditional preference of older generations for natural hair under head scarves. Nonetheless, overall, the most dramatic difference in prevalence was between women younger than 50 years vs those older than 50 years (1.2% vs 6.7%, respectively). Our group's overall prevalence at 2.7% was somewhat consistent with 5.6% if one considers our study's younger mean age (38 years<sup>6</sup> vs 48 years<sup>2</sup>).

Kyei et al concede that their study may not represent the general African American population. The results could also have been influenced by factors such as the study advertisement, number of sites, church neighborhoods, sample size, and the proportion of church attendees who participated. However Kyei et al beautifully demonstrated more severe hair loss in older participants (grades 0-1, 2-5, and 3-5 in mean age groups 40, 53, and 58 years, respectively).<sup>1</sup>

Future studies objectively confirming concurrent diseases such as diabetes would be preferable. Although the role of relaxers remains unclear, an association with traction has been reported.<sup>1,7</sup> A strong correlation between CCCA and traction alopecia in the same study population would support a causal link with traction. It would be interesting to see whether this is confirmed in various populations. The age-associated increase in prevalence may be augmented by hair grooming. However, the role of genetic susceptibility to developing CCCA is yet to be elucidated.

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