



ABSTRACTS

Dermatology Teachers Exchange Group/ Association of Professor of Dermatology

Semi-annual Meeting

**Convention Center, Room 3018/West Building
San Francisco, CA, USA
March 7, 2009**

Contacts:

Ponciano.cruz@utsouthwestern.edu

Susan.milberger@utsouthwestern.edu

Evaluation of an Interactive, Online System For Medical Student Teaching of Basic Dermatology Skills. Art Papier-MD, University of Rochester College of Medicine, Rochester NY.

An interactive, online dermatology morphology and basic skills tutorial for medical students has been developed and evaluated. Student feedback and formal usability testing resulted in a redesigned 2.0 version of the tutorial now freely available at www.learnderm.org. Results from the medical student study and usability testing will be discussed.

Objectives: To evaluate the effectiveness of an on-line, interactive tutorial for teaching dermatologic terminology to medical students and explore student preferences regarding the implementation of computer-assisted instruction in the dermatology curriculum.

Methods: First year medical students who were learning dermatologic terminology for the first time were asked to use the tutorial as part of the standard dermatology curriculum for medical students. Second year students were asked to use the tutorial for further instruction in dermatologic terminology.

Main Outcome Measures: Effectiveness of the tutorial was evaluated by comparing scores on a test of dermatologic terminology prior to and following the use of the on-line tutorial. Participants also completed a brief survey regarding their opinion of the CAI tutorial and self-perceived level of computer expertise.

Results: Improvements in score on a test of dermatologic terminology were significant for both first and second year medical students. These improvements did not correlate with gender or self-reported level of computer expertise. The majority of students preferred the tutorial over both lectures and textbooks for learning dermatologic terminology.

Conclusion: Computer-assisted instruction is an effective tool for teaching dermatologic terminology to medical students. The majority of students preferred the on-line tutorial over traditional lectures and textbooks, although survey responses and other subjective data suggest that some students would oppose completely replacing lectures with the on-line instruction. While additional studies are necessary to evaluate the best methods for implementing this tutorial, the results of the study suggest that computer-assisted instruction has the potential to improve education in dermatology.

COPYRIGHT ISSUES CONCERNING USE OF ONLINE ATLASES FOR MEDICAL TEACHING.

Zaki Taher*, Jeanette Buckingham**, Andrew N Lin**, ~~Division of Dermatology,~~ ** Librarian, John W Scott Health Sciences Library, University of Alberta.

PURPOSE OF STUDY: Medical teaching today relies heavily on medical images that are incorporated in presentations, lecture notes and publications. Online medical atlases are important sources for images due to their ease of access and acquisition by “copy and paste” methods. Many atlases are maintained and hosted through medical teaching institutions but there are also private collections of medical images as well as government hosted medical atlases. Although it is easy to acquire and use images in medical presentations and curricula, caution must be taken to recognize and respect the copyright rules that govern their use.

METHODS: We inspected 13 online atlases for various medical fields. Five were devoted to dermatology, and one additional online atlas was devoted to each of the following disciplines: histology, ophthalmology, gynaecologic pathology, neurology, radiology, paediatrics, hematology, and one CDC image bank. We specifically looked for information concerning copyright protection of the images displayed in those atlases.

SUMMARY OF RESULTS: In all 13 online atlases, each image we inspected contained a line indicating the image was copyright protected except for the CDC images. In 9 atlases, clear information was provided on how and where to obtain permission, with appropriate links; one atlas expressly prohibited reuse of the images; and restrictions for the remaining 3 were unclear.

CONCLUSIONS: Permission policies and usage restrictions vary greatly between online atlases. Medical instructors need to invest time in finding out the copyright restrictions of each site. . The simple ``copy and paste`` approach is not permitted in most cases. One should always seek permission from the copyright holder -- the author, editor, or publisher --to use images that are copyright protected.

~~Principal presenter: Andrew N Lin, Division of Dermatology, University of Alberta~~

~~Contact person: Dr Andrew N Lin, anlin00@yahoo.com, phone 780-407-3024~~

~~Previous Presentations: Some of this material was presented at the January 2008 Teaching the Art of Medicine Conference, Calgary, Alberta, Canada.~~

An Online Video Contest to Promote Sun Safety Awareness.

Karl Vance, William Howe, Robert P. Dellavalle, ~~Department of Dermatology, University of Colorado at Denver and Health Sciences Center, Department of Veterans Affairs Medical Center, Denver, CO.~~

Background: YouTube is the third most heavily visited site on the internet with more than 100 million videos viewed daily. It is a major part of “Web 2.0” on which the content is actually “user-generated.” YouTube has become a popular outlet for marketing, and companies such as GM, Sony and JetBlue have hosted on-line video advertisement contests. Survey data also indicate that our patients have begun to search for health information on social media websites, including YouTube.

Objective: To analyze the sun safety related content on YouTube, and to create an online video contest for user-generated sun safety awareness videos.

Methods: We performed a YouTube query for the term “sun safety” and sorted the results by “relevance,” a proprietary algorithm. We then analyzed the first page of results for theme and origin. In addition, the Sulzberger Institute for Dermatologic Education provided funding for an online video contest which will be advertised to medical students, film students, and dermatology residents. The videos will be hosted on YouTube, and experts in film, marketing and dermatology will vote on the best videos.

Results: A query for “sun safety” on YouTube yielded 790 videos, with 26 on the first page of results. The top 3 results are a series produced by the Canadian Dermatology Association aimed at promoting sun safety for outdoor workers. Sun Safety Alliance is another group with several high ranking videos, predominantly public service announcements that use a combination of humor and celebrity to spread sun safety messages. One video is an amateur school project.

Limitations: We were unable to view all of the “sun safety” videos on YouTube, the content of YouTube is constantly changing, and we did not query other related search terms that may return more relevant videos.

Conclusions: YouTube has the marketing advantages of low cost and wide dissemination. Many companies are utilizing these strengths through user-generated, online video contests. Similarly, public health messages may be spread on YouTube. We have created an online video contest eliciting sun safety awareness videos which may be spread widely and cheaply across the internet.

Podcasting in Dermatology Education. Ali Alikhan, Ravneet R. Kaur, Steven R. Feldman
University of California Davis School of Medicine; Sacramento, CA, David Geffen School of Medicine at the UCLA, CA, Dermatology, Pathology, Public Health Sciences; Wake Forest University School of Medicine; Winston-Salem, NC.

Background: Podcasting is a relatively new technology, which allows users to subscribe to audio/video broadcasts online, download new ones, and transfer to their MP3 devices. Studies in medical and dental schools have demonstrated that podcasting is an effective learning method.

Objective: To discuss the history, strengths, and weaknesses of the dermatology-related podcasts available for download.

Methods: An iTunes search was performed, and 5 dermatology-related podcasting subscriptions were accessed; the previous 10 podcasts in each subscription were assessed to compile an overall picture. Authors listened to all podcasts, evaluated them independently, then shared their evaluations to optimally capture details.

Results: Each of the podcasting services had its own strengths and weaknesses. While some were targeted towards practicing physicians, others were targeted to patients and medical students. Furthermore, none of the services updated at any regular, timely interval.

Limitations: Our analysis was limited to podcasts in the English language. We did not assess the accuracy of the podcasts content.

Conclusion: Podcasting allows a truly mobile educational resource, one that could benefit dermatologists. Prestigious journals and large institutions should become more involved in developing informative, evidence-based podcasts at regular intervals. Videocasting offers the possibility of viewing procedures. Conferences are also prime ground for podcasts. Improved regulation and increased interest (from large organizations and institutions) will be crucial to its future.

Residency applications and identification of factors associated with residents' ultimate career decisions. Jean L. Lim, Alexandra B. Kimball, Beth Israel Deaconess Med Ctr, Massachusetts General Hospital, Boston, MA

Objective: To determine if components of the residency application can be used to predict the likelihood of a resident choosing a career in academic dermatology

Design: A retrospective review of the application files of prior graduates of the Harvard Dermatology Residency Program who graduated between 1991- 2005.

Participants: 85 of 89 of the graduates were included in the study. The participants who were included met the following eligibility criteria: graduated from residency between 1991- 2005, residency application was available in departmental files, and the graduate's current workplace practice setting was known.

Main Outcome Measures: Graduates were divided into two groups: 1) those primarily working in academic settings and 2) those working primarily in non-academic settings. Data from the graduates' application files was recorded to assess correlations between pre-residency selection factors and a subject's eventual career choice.

Results: 31 (36.5%) graduates currently work in a primarily academic setting and 54 (63.5%) graduates currently work in a primarily non academic setting. The total number of publications (adjusted OR = 1.48, 95% CI = 1.07-2.06, p = 0.02), the number of volunteer experiences (adjusted OR = 1.53, 95% CI= 1.00-2.32, p = 0.05), and possession of an advanced degree in addition to M.D. (adjusted OR = 6.93, 95% CI= 0.99-48.5, p = 0.05) at the time of application were significantly associated with currently working in an academic setting.

Conclusions: Although it is not possible to distinguish between cause and effect, this data may help guide programs in developing residency selection criteria. The data suggests that possession of an advanced degree, number of publications, and volunteerism may correlate with choosing academic careers.

Is it Possible to Pick Good Residents? A review of the evidence. Matthew J Zirwas, Ohio State University; Columbus, OH.

Objective: Assess the evidence regarding the selection of residents method: Review of studies regarding variables that predict how well a resident will perform results: A number of studies were identified. The typical study attempted to correlate information obtained during the residency application process with performance as an intern or with performance over the entire residency. **Methods for assessing performance varied.** Application variables that were assessed included

USMLE Step 1 score, USMLE Step 2 score, pre-clinical grades, clinical rotation grades, letters of commendation, interview performance, and position on program NRMP match list.

No variables or combination of variables were found to be strong predictors of resident performance in any study. The point is made that it is possible medical school performance is simply not related to, nor predictive of performance in residency, and that as a result, it may be improper and possibly unethical to elect residents based on medical school performance measures. However, while these studies do not demonstrate correlations between medical school performance and performance as a resident, they also do not prove that such a correlation does not exist, as the studies were small and the methods of assessing resident performance are not validated or consistent. Several interesting tentative conclusions can be drawn by considering certain weak correlations that were relatively consistent across studies and the strong lack of correlation between resident performance and certain application variables. Some studies did discuss methods to increase the utility of the interview process, the reliability of the review letters of recommendation, and the interpretation of clinical grades. A more detailed review of these findings will be presented.

The Dermatology Integrative Competency Curriculum: Faculty and Resident Perspectives. Sarah Kerr MD & Erik J. Stratman MD Marshfield Clinic, Marshfield, WI

The Dermatology Integrative Competency Curriculum (DICC) is a dermatology education tool used by four midwest programs that incorporates adult learning principles. It identifies, evaluates, and tracks group discussions categorized using the ACGME competencies. DICC is a small group, web-based, problem-based learning tool. Each topic area is presented in the context of a patient case. Questions and objectives for discussion in each case are linked to one or more of the six competencies. Learners are assigned unknown objectives to further investigate and teach other participants when the group reconvenes. Faculty facilitators moderate the cases. Competency reports can be generated.

The aim of our study was to obtain resident and faculty perspectives on DICC. Participants at all sites using DICC were contacted by email and invited to complete a voluntary online survey. Residents and faculty were asked to compare the impact of DICC to didactic activities such as lectures with questions and answers on competencies including communication skills, problem solving skills, and management of ethical dilemmas. Eleven faculty and seventeen residents completed the survey. The results were analyzed to identify strengths and weaknesses of DICC in comparison to didactics. In-training exam percentile ranks prior to and after DICC implementation at one institution were averaged with subsequent statistical analysis.

Residents responded that DICC was superior to didactics in multiple areas, including problem solving competency and providing excellent patient care. Increased DICC case experience correlated with a more positive perspective in several areas. Faculty responded that DICC was superior to didactics in competency tracking and assessment of learner problem-solving. Faculty also felt that with less preparation time they learned more from a DICC case than from preparing and delivering a lecture.

Data available from one institution demonstrates that average percentile ranks on the dermatology in-training exam increased in most areas after implementation of DICC. Areas of greatest improvement include total score and basic sciences. DICC may make basic science instruction more memorable because information is learned within the context of patient problems. DICC is available to any interested program.

The Dermatology Integrative Competency Curriculum: Faculty and Resident Perspectives. Sarah Kerr MD & Erik J. Stratman MD Marshfield Clinic, Marshfield, WI

The Dermatology Integrative Competency Curriculum (DICC) is a dermatology education tool used by four midwest programs that incorporates adult learning principles. It identifies, evaluates, and tracks group discussions categorized using the ACGME competencies. DICC is a small group, web-based, problem-based learning tool. Each topic area is presented in the context of a patient case. Questions and objectives for discussion in each case are linked to one or more of the six competencies. Learners are assigned unknown objectives to further investigate and teach other participants when the group reconvenes. Faculty facilitators moderate the cases. Competency reports can be generated.

The aim of our study was to obtain resident and faculty perspectives on DICC. Participants at all sites using DICC were contacted by email and invited to complete a voluntary online survey. Residents and faculty were asked to compare the impact of DICC to didactic activities such as lectures with questions and answers on competencies including communication skills, problem solving skills, and management of ethical dilemmas. Eleven faculty and seventeen residents completed the survey. The results were analyzed to identify strengths and weaknesses of DICC in comparison to didactics. In-training exam percentile ranks prior to and after DICC implementation at one institution were averaged with subsequent statistical analysis.

Residents responded that DICC was superior to didactics in multiple areas, including problem solving competency and providing excellent patient care. Increased DICC case experience correlated with a more positive perspective in several areas. Faculty responded that DICC was superior to didactics in competency tracking and assessment of learner problem-solving. Faculty also felt that with less preparation time they learned more from a DICC case than from preparing and delivering a lecture.

Data available from one institution demonstrates that average percentile ranks on the dermatology in-training exam increased in most areas after implementation of DICC. Areas of greatest improvement include total score and basic sciences. DICC may make basic science instruction more memorable because information is learned within the context of patient problems. DICC is available to any interested program.

The dermatology morbidity and mortality conference: an effective tool for addressing the ACGME competencies. Michi M Shinohara, and Roy M Colven

"Know thyself." (Inscribed on the temple of Apollo at Delphi.)

"The meeting of personalities is like the contact of chemical substances: if there is any reaction, both are transformed." *Carl Jung*

The six competencies for resident trainees were implemented by the Accreditation Council for Graduate Medical Education (ACGME) to provide a standard to be achieved by graduating residents. There is currently a paucity of literature on methods to teach these competencies to dermatology residents, especially practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice. The morbidity and mortality conference (M&M) is a tradition from the surgical and anesthesia cultures originally intended to address medical errors and adverse patient outcomes with the goal of improved quality of care. The M&M has since been modified and adopted by several disciplines as a teaching conference. A Dermatology M&M was implemented in the University of Washington Division of Dermatology to address some of the more challenging ACGME competencies. The conference was highly rated, and participants felt that the discussion addressed all of the competencies. Specific ideas for system-wide improvements in patient care were generated by the group discussion. M&M is a tool that can be helpful in teaching the ACGME competencies to dermatology residents.

Dermoscopy Training in US Dermatology Residency Programs: A Survey Study. Stephanie Diamond, Lisa Y. Xu, Alice C. Watson, William Beaumont Hospital, Royal Oak, MI, Henry Ford Hospital, Detroit, MI.

Dermoscopy is a noninvasive technique that can be used to assist in the diagnosis of skin lesions. Multiple studies have shown that dermoscopy can enhance the ability to detect atypical nevi and melanoma when used by dermatologists properly trained in the technique. The purpose of this study is to assess the number of US dermatology residency programs that are clinically using or providing didactic teaching in dermoscopy. A survey was sent out to all ACGME-accredited dermatology residency programs, targeted towards chief residents, with 61% of programs responding. While 82% of programs reported using dermoscopy in some fashion during clinic, only 54% had formal didactic teaching on dermoscopy for their residents. 79% of respondents desired more lecture time dedicated to dermoscopy in their program. The most commonly identified barrier to formal training in dermoscopy was the lack of faculty with expertise in their department. This study shows that there is opportunity for US residency programs to improve their residency curriculum and training in dermoscopy, and the need for departments to develop and recruit faculty with such expertise.

~~A randomized outcomes based study comparing the use of 3-dimensional prosthetics mimics of dermatologic lesions and eruptions with traditional lecture utilizing 2-dimensional images.~~

Amit Garg¹, Heather Lynn Haley², Grace Fong², Anita Tseng², David Hatem²,
Boston University School of Medicine¹ and University of Massachusetts Medical School², Boston,
MA

~~—(any suggestions for a more specific title?)~~

~~Background:-~~

~~Dermatology teaching methodology for pre-clinical medical students is largely limited to didactic lectures with 2-D images. However, learners at this stage have limited ability to place learned content into clinical context, and these sessions offer little experiential learning. Moreover, it is unclear whether this approach facilitates meaningful long-term recognition and basic management skills for common or serious lesions/dermatoses.~~

~~Other methodologies have been employed with varying degrees of success. Small group problem based discussion require more time, effort, and instructors than do other formats. Learning in live patient session is limited by the ability to find suitable, reliable patients, and due to difficulty in finding important lesions at the time of the session. Web based modules and other media, which also employ 2-dimensional images are largely self directed and limited by an inability of the teacher to elaborate or engage learners in spontaneous discussion.~~

~~Lesions and eruptions are three dimensional (3D) structures with clinical features best appreciated by touch and subtle visual clues that are often lost in two dimensional (2D) photographs commonly used in teaching dermatology. To this end, we explore a novel methodology that employs virtual 3D-dimensional prosthetic models of common and important lesions and eruptions to train 2nd year pre-clinical medical students in acquiring dermatologic skills.~~

~~Methods:~~

~~**Study Design** Approval was obtained from the institutional review board and from the Dean of Undergraduate Education at the University of Massachusetts Medical School (UMMS). Second year medical students enrolled at UMMS in AY 2007-2008 were included in the study. The class was divided randomly into two cohorts. Both Two-Dimensional (2D) (n=419) and Three-Dimensional (3D) (n=494) cohorts underwent a web based module employing 2-dimensional images that assessed (Assessment I) recognition and basic management skills for several common and important lesions and eruptions. This pre-training assessment (T1) was followed by a single one hour teaching intervention in which the 2D cohort underwent a traditional content based lecture utilizing 2D images, while the 3D cohort underwent a teaching session utilizing 3D prosthetic lesions and eruptions affixed to a standardized patient model. Content and teaching time were the same for both cohorts. All learners were assessed (Assessment II) by the same web based module employing 2D images immediately after their respective instructional interventions (T2). Learners were also surveyed anonymously regarding their general impressions of their respective instructional sessions. 2D and 3D cohorts and were assessed (Assessment III) a third time three months after their teaching intervention (T3). The T3rd assessment was expanded in order to better discriminate between the cohorts. As an optional exercise, learners in either cohort were offered the alternate teaching session, so that all learners had the opportunity to experience the same teaching over the course of the study.~~

~~Analyses-~~

~~Specific outcome measures at each assessment time point included overall performance, morphology recognition, lesion recognition, rash recognition, lesion initial management, and rash initial management.~~

~~(Heather, Please elaborate on types/methods of statistical analyses)~~

~~A survey to determine general impressions and attitude towards teaching methodologies was assessed by a 5 point Likert scale.~~

~~Results:-~~

~~Paired t-tests show that t- (Heather, Please add relevant details)~~

~~Prior to any teaching intervention, the mean percent scores for overall, morphology, lesion recognition, rash recognition, lesion management, rash management performances were similar and not significant between the 3D and 2D groups.~~

~~he 3D and 2D groups did not differ significantly on T1 (pre-training) overall scores (51.9 v 50.3, $p=.54$). Both groups showed a similar pattern of significant improvement from T1 to T2, and then a decrease in scores at T3; T3 scores were still significantly higher than T1 scores for both groups. One-way analysis of variance found that the 3D group had significantly higher T2 scores than the 2D group for overall performance (71 v 65, $p=.029$), lesion recognition (65 v 56, $p=.023$) and rash management (80 v 67, $p=.01$).~~

~~Immediately after the single teaching intervention, mean percent score for overall performance was significantly higher in the 3D group (71%) compared to the 2D group (65%) ($p = 0.029$). The mean percent score for lesion recognition performance was significantly higher in the 3D group (65%) compared to the 2D group (56%) ($p = 0.023$). The mean percent score for rash management performance was significantly higher in the 3D group (80%) compared to the 2D group (67%) ($p = 0.010$). The mean percent scores for morphology, rash recognition, and lesion management performances were higher in the 3D group and 2D group, and these differences did not reach statistical significance.~~

~~Three months after the single teaching intervention, the 3D group still had significantly higher mean percent score for lesion recognition (47 v 40, $p=.03$) and a higher mean percent score for overall performance (though not significant at 60.0 v 55.4, $p=.08$), and mean percent score for lesion recognition (47 v 40, $p=.03$). performance was significantly higher in the 3D group (47%) compared to the 2D group (40%) ($p = 0.032$).~~

~~The mean percent scores for overall, morphology, rash recognition, lesion management, rash management performances were higher in the 3D group compared to the 2D group, and these differences did not reach statistical significance.~~

~~In the 3D group, learners agreed or strongly agreed that the 3D session was 1) more enjoyable than classroom lectures (96%), 2) effective in facilitating recognition of lesions and rashes (94%), and 3) perceived to be a more effective teaching method than lectures with 2D images (94%). The 3D learners felt that the 3D prosthetic pieces 1) appeared realistic enough to learn from (79%), 2) facilitated close examination of specific morphologic features (92%), and 3) had a learning benefit that outweighed their artificiality (96%).~~

~~In the 2D group, 42% of learners agreed or strongly agreed that it was difficult to examine specific morphologic features of lesions and rashes projected as 2D images, while another 30% were neutral on this issue.~~

~~(Heather, did we consider reporting Confidence Intervals for outcome measures?)~~

~~Conclusions:-~~

~~The teaching methodology employing 3-dimensional prosthetic mimics was preferred and of common and important lesions and eruptions resulted in improved immediate learning and long-term retentioner outcomes with respect to overall performance, lesion recognition and rash management compared to the 2D group. With regard to lesion recognition, the 3D group outperformed the 2D group 3 months after a single teaching intervention. Performance across several outcomes in the 3D group immediately and 3 months after a single intervention was similar to that of the 2D group. The general impressions and attitudes towards the 3D methodology were highly favorable among learners. These encouraging results provide a framework to further develop and evaluate this novel undergraduate teaching program in dermatology, and to consider its application in other health care learners, and to see if learning through this approach is incremental to 2D lecture based learning.~~

~~Heather, is there a way we could measure performance outcomes within each group across the three time points. For example, how did the 3D group perform Baseline vs Immediate vs Long-term. Any differences in performance?~~

~~Limitation (Heather, please add/elaborate statistical limitations)~~

~~Since we were limited by the size of the class, a power analysis was not performed prior to the study.~~

~~It is unclear if the unique nature of the 3D teaching methodology itself influenced learning.~~

~~We could not control for the possibility that the 2D group took notes during the lecture, and these notes may have been reviewed prior to taking the assessments post intervention.~~

~~Assessment outcomes may have been skewed to favor the 2D group since 2D images were displayed.~~

~~It is unlikely that a 1 hour teaching intervention, regardless of methodology, would result in long-term learning 3 months after the intervention. It is unclear if long-term outcomes would have been achievable either 1 month after the teaching intervention or after repeated interventions such as occurs in the actual learning environment.~~

~~Outcome measures may become more disparate with the 2nd generation of prosthetic pieces, an increased number of study participants, more discriminating assessments that are not skewed to favor either group.~~

~~Need to look at incremental learning relative to didactic lectures, since lectures are the foundation of a pre-clinical curriculum.~~

~~Variations among teaching styles among small groups~~

A new dermatology curriculum that improves medical student knowledge of dermatology. Dunnick CA, U of Colorado Denver, Denver, CO.

Dermatology training is an important part of medical education because skin disorders are common and are cared for in large part by primary care physicians. Our dermatology department developed a dermatology curriculum for first year medical students. On the first day of class, 88 of 111 students attending class voluntarily completed an 18-question written survey assessing knowledge and attitudes toward dermatology. All students then participated in a dermatology curriculum consisting of 9 hours of lecture, 6 hours of small group sessions and a clinical session with volunteer patients. Dermatology faculty lectured, whereas dermatology residents served as preceptors for the small groups and clinical session. Two months after completing the curriculum, 112 students out of a class of 156 responded to the identical written survey with 6 additional knowledge questions to control for pretest bias.

Results of an independent t-test indicated that students' knowledge increased significantly when the overall item mean for pretest and posttest questions were compared ($t = 7.248$; $p \leq .0001$). This represents a large effect size ($d = 1.2$) and a meaningful gain in knowledge. Six of the eight common items showed significant improvement ($p < .0001$) from pretest to posttest. Students also were asked to rate their comfort in diagnosing and treating common skin disorders on 10 items. Comparison of comfort between the pretest and posttest indicated a significant ($t = 10.649$; $p \leq .0001$) increase in comfort levels from a mean of 15.36 to 26.75. In addition, students' knowledge and comfort correlated significantly ($p < .05$) at both pretest ($r = .272$) and posttest ($r = .211$). Finally, the survey responses showed the students were more satisfied with small group and lecture instructional methods, but in course evaluations the students particularly praised the usefulness of exposure to the clinical setting. This suggests that dermatology taught early in medical school can increase students' knowledge and comfort with examining, diagnosing and treating common skin disorders.

Patients' satisfaction with dermatology residents' care. Megan A. Kinney, Katherine R. Kerchner, Andrew D. Lee, Amy J. McMichael, Steven R. Feldman. Department of Dermatology, Wake Forest University School of Medicine, Winston-Salem, NC

Background

Patient satisfaction improves treatment plan adherence, outcomes and doctor-patient relationships. Measuring patient satisfaction supports patient satisfaction improvement efforts.

Purpose

To assess patients' satisfaction with dermatology residents and to test the feasibility of online patient satisfaction measurement in this population.

Methods

Anonymous patient satisfaction data were collected from a convenient sample of patients using www.DrScore.com, a previously validated online survey. Patients were given a card with the DrScore.com address and asked to complete the survey. 12 resident physicians were rated in 5 core areas including: doctor, exam, timeliness, treatment, and staff. Variables encompassing "Doctor Healthcare Composite Score," "Practice Composite Score" and free-text comments were also collected. One resident noted that on average 1 survey was completed for every 8 cards distributed. Areas for improvement were found by comparing the residents' mean score on each item to those of best rated physicians.

Results

94 surveys were completed. The mean overall patient satisfaction score was 9.5 of 10 for all 12 residents with a median resident score of 9.8. The mean "Doctor Healthcare Composite Score" for residents was 95.5 and the mean "Practice Composite Score" was 91.3. The one item identified as an area for improvement was convenience (-0.365). 72 patients provided open comments of which 71 were positive. The one other comment was that the resident was not knowledgeable about sensitive skin products and oversimplified the patient's diagnosis.

Discussion

Overall patient satisfaction with care rendered by dermatology residents is extraordinarily high, generally higher than faculty in the same department. The only significant area for improvement was convenience to clinic, which is not directly under residents' control. Online patient satisfaction data collection was well accepted by dermatology residents. They reported participation in the survey easy and quick, found positive reinforcement a good teaching tool, and felt it had good validity because of anonymity. The comments and ratings have been used to make changes and solidify positive actions to improve residents' practices.

The OTSee Series: An Overview and Report of Outcomes from a Multidisciplinary Experiential Conference Designed to explore Over-the-counter Dermatologic Products. Jared Lund, Erik Stratman, Sue Wilhelm, Katie Hughes-Schueller, Nadine Punke, Marshfield Clinic, Marshfield, WI. **Background:** Many patients use over-the-counter (OTC) products recommended and sold by pharmacists but not familiar to, sampled by, nor recommended by dermatologists. The OTSee series is a novel educational teaching conference designed to discuss, evaluate, and “experience” common OTC dermatologic products and foster collegial relations between pharmacists and dermatologists.

Objective: We sought to investigate whether the OTSee series increased knowledge, changed performance, and improved dermatologist-pharmacist communication.

Methods: Session evaluations completed were analyzed to measure attendance and a quality score for each session. A post activity survey was also distributed to both pharmacists and dermatologists to address if changes in knowledge and performance occurred.

Results:

Session Evaluation Data

A total of 100 session evaluations were analyzed from 52 individuals representing six different educational backgrounds. All dermatologists and all residents participated in the OTSee sessions, compared with 54% of the pharmacists. However, pharmacists were the largest group of participants in the OTSee series. The average attendance for each session was 17 participants. In general, overall session quality was highly rated by participants.

Post-activity Survey

In addition, 31 out of 87 members in the target audience responded to the post-activity survey, for a response rate of 37%. The OTSee series was assessed by 75% of survey respondents as significantly improving competency in interdisciplinary communication between pharmacists and dermatologists. The 25 survey respondents who had participated in OTSee sessions all identified definitive outcomes in knowledge. Of these respondents, 65% also identified changes in recommendations or education strategies with patients in their practice.

Conclusion: The program fosters an evidence-based approach to OTC patient education strategies for pharmacists and dermatologists. Dermatologists better identify the OTC products their patients use. Pharmacists better identify why dermatologists recommend specific OTC products. Change in knowledge and change in performance both result from this series.