Developing an LGBT Curriculum and Evaluating its Impact on Dermatology Residents

Authors:
Nathan Vengalil M.D., Department of Dermatology, University of Michigan.
Daniel Shumer M.D., MPH, Department of Pediatric Endocrinology, University of Michigan
Frank Wang M.D., Department of Dermatology, University of Michigan

Corresponding Author:

Nathan Vengalil, M.D.
Department of Dermatology, University of Michigan
1910 Taubman Center
1500 E. Medical Center Dr.
Ann Arbor, MI 48109
Phone: 313-806-2476
Fax: 734-936-6395
vengalil2@gmail.com

Category of Article: Education

This is the author manuscript accepted for publication and has undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process, which may lead to differences between this version and the Version of Record. Please cite this article as doi: 10.1111/IJD.15842

This article is protected by copyright. All rights reserved

Figures/Tables: 2 Figures, 2 Appendices

Key Words: Dermatology Education, Clinical Dermatology, Education

Conflicts of interest: None to declare from any of the authors

Introduction:

The Lesbian, Gay, Bisexual, Transgender (LGBT) community has been increasing in size over the last decade and now makes up 4.5% of the U.S. population.[1] LGBT identifying patients face unique healthcare disparities, which are increasingly being brought to light in the lay and medical literature. LGBT patients continue to face numerous barriers that directly impact adequate health care, including provider bias/attitudes and limited access to care. The result of such barriers is negative medical and dermatologic health outcomes; for instance, LGBT patients face increased rates of sexually transmitted infections (STIs) and gay men suffer from increased rates of skin cancer.[2,3] According to the federal government's public health agenda, Healthy People 2020, such disparities can be attributed, partially, to the lack of healthcare professionals who are knowledgeable and culturally competent in LGBT health.[4]

To begin improving health disparities that LBGT patients face, education and training of medical providers are crucial; indeed, improving cross-cultural education of trainees has been demonstrated to reduce stigmatization of LGBT patients and improve patient outcomes.[2] However, the state of medical training in this arena remains inadequate; for example, 20% of a set of medical students, residents, and fellows surveyed in 2013 reported receiving no training in eliciting sexual histories of LGBT patients.[5] Within dermatology, incorporating LGBT topics in curricula of U.S. dermatology residency programs has remained low; for instance, a 2018 survey of programs revealed that 28% had relevant content, while 20% reported having none.[6] Furthermore, in the American Academy of Dermatology's Basic Curriculum, only 0.3% of the 293 cases mention an LGBT patient.[4]

To take action against this training gap, we developed an educational initiative in the form of a didactic curriculum within our dermatology program. We aimed to increase our

This article is protected by copyright. All rights reserved

residents' cultural competency and dermatologic acumen in caring for LGBT patients, considering that similar interventions in internal medicine have improved residents' knowledge, confidence, and comfort in working with LGBT patients.[7,8] In this pre-post study, we evaluated our curriculum's impact by comparing survey responses before and after each lecture.

Methods

The curriculum was comprised of two lectures: the first focused on dermatologic conditions in gay, lesbian, and bisexual patients and the second on dermatologic conditions in transgender and gender non-binary patients. Content was developed from relevant literature [9-11] and resources from the American Academy of Dermatology's Expert Resource Group, and by collaborating with experts from our institution's medical dermatology and gender services programs.

The lectures combined traditional didactic teaching with interactive cases, and aimed to increase cross-cultural education by reviewing LGBT terminology, behaviors (e.g., online dating practices, "pumping parties"), and strategies to elicit sexual history nonjudgmentally. Dermatologic topics included infectious diseases (e.g., STIs, human immunodeficiency virus), alkyl nitrite ("poppers") dermatitis, polycystic ovarian syndrome, iPLEDGE considerations, side effects of hormone therapy (e.g., acne, androgenetic alopecia), and cosmetic procedures (e.g., laser hair removal, injectable fillers). When individual skin conditions were discussed, we included a corresponding discussion about each community's different needs and risk behaviors. The lectures were presented by one of the authors (N.V.) over two 45-minute blocks during resident didactic time.

The study was considered exempt by our institutional review board. Original surveys (Appendix A, B) were developed by one of the authors, after completing a University of Michigan survey design course "Survey Data Collection and Analytics Specialization" through an online platform (Coursera). The course provided training on questionnaire design, with a focus on limiting biases and maximizing validity and reliability. The anonymous surveys were distributed before and after each lecture, and individual responses were not tracked. The surveys assessed residents' satisfaction with current training in LGBT dermatology (scale 0-4: inadequate, less than adequate, adequate, more than adequate, exceptional), surprise after

This article is protected by copyright. All rights reserved

learning about LGBT skin concerns (scale 0-4: not at all, slightly, moderately, very, extremely surprised), and confidence in identifying and caring for LGBT dermatologic conditions (scale 0-3: not confident, developing confidence, mostly confident, fully confident). Out of 24 total residents, 20 attended the first lecture and 1 additional resident was present for the second lecture. Survey response was 100% and residents answered all questions. The data were analyzed and graphed through Microsoft Excel.

Results

Residents' rating of current (baseline) dermatologic training pertaining to gay, lesbian, and transgender individuals was, on average, near "less than adequate" (Figure 1). After completing the curriculum, residents felt "moderately" to "very" surprised upon learning about dermatologic concerns of gay/lesbian and transgender patients (Figure 1).

Before the curriculum, residents' confidence in identifying dermatologic concerns of gay, lesbian, and transgender patients hovered, on average, between "not confident" and "developing confidence" (Figure 2). After the curriculum, most residents reported increased confidence for each group; averages increased nearly one point, settling between "developing confidence" and "mostly confident." Residents' reported confidence in caring for dermatologic concerns of these patients followed a similar pattern (Figure 2).

Discussion

Our study exemplifies that a few leaders within an institution or residency program can feasibly develop an impactful LGBT dermatology curriculum. Our modest intervention, consisting of 2 interactive, case-based lectures, allowed us to assess residents' baseline training in LGBT skin disease, and increase residents' confidence in working with LGBT patients and addressing their unique dermatologic concerns. By collaborating with experts in medical dermatology and our gender services programs, we were also able to consider each LGBT sub-group's needs carefully, as well as their relationship with dermatology.

The necessity and importance of this intervention were supported by residents' "surprise" after learning about LGBT dermatology, as well as their "less than adequate" baseline training in

This article is protected by copyright. All rights reserved

the topic. Furthermore, our curriculum enhanced residents' fundamental knowledge in a concise, yet impactful manner, as reflected by increased confidence in identifying and caring for dermatologic concerns of LGBT patients.

There are a few limitations to our study. Firstly, response bias must be considered, due to nature of the survey intervention. In order to lessen the effect of this type of bias, including the possibility of "satisficing" (residents giving the response they feel is desired), we developed our surveys through the guidance of an institution-based survey design course and did not track resident survey responses. Another limitation of our study was determining statistical significance. Since survey responses of individual residents were not tracked, it was not possible to conduct formal testing for statistical significance, although standard errors could be calculated. Finally, long-term retention and clinical application of the curriculum are difficult to evaluate and represent another limitation. Currently, we continue to expand and update the curriculum, and use spaced repetition to revisit aspects of the lectures in our standard dermatology didactic curriculum and through relevant patient interactions.

Overall, our curriculum represents one step in better educating trainees about LGBT patients and their dermatologic concerns. In our department, this curriculum is part of a larger one that includes case-based teaching, discussion of disparities, and guest speakers on the care of marginalized populations. Moving forward, it will be important for dermatology programs to evaluate their curricula and consider initiating similar interventions. Implementing self-designed curricula, adopting a future national curriculum, or adapting a national curriculum to meet local needs will be the first steps in training dermatologists to better care for the LGBT community. In conjunction, a future LGBT curriculum should incorporate discussion of relevant psychosocial, racial and other determinants of health.

References

1. Chatterjee, Subhankar, Payel Biswas, and Rishi Tuhin Guria. 2020. "LGBTQ Care at the Time of COVID-19." *Diabetes & Metabolic Syndrome* 14 (6): 1757–58.
2. Fakhoury, J. W., & Daveluy, S. (2020). Incorporating Lesbian, Gay, Bisexual, and Transgender Training into a Residency Program. *Dermatologic Clinics*, *38*(2), 285–292.

This article is protected by copyright. All rights reserved

3. Singer, Sean, Elizabeth Tkachenko, Rebecca I. Hartman, and Arash Mostaghimi. 2020. "Association Between Sexual Orientation and Lifetime Prevalence of Skin Cancer in the United States." *JAMA Dermatology* 156 (4): 441–45.
4. Park, Andrew J., and Kenneth A. Katz. 2018. "Paucity of Lesbian, Gay, Bisexual, and Transgender Health-Related Content in the Basic Dermatology Curriculum." *JAMA Dermatology* 154 (5): 614–15.
5. Hayes, Victoria, Whitney Blondeau, and Robert G. Bing-You. 2015. "Assessment of Medical Student and Resident/Fellow Knowledge, Comfort, and Training With Sexual History Taking in LGBTQ Patients." *Family Medicine* 47 (5): 383–87.
6. Jia, J. L., Nord, K. M., Sarin, K. Y., Linos, E., & Bailey, E. E. (2020). Sexual and Gender Minority Curricula Within US Dermatology Residency Programs. *JAMA Dermatology* . https://doi.org/10.1001/jamadermatol.2020.0113
7. McGarry, Kelly A., Jennifer G. Clarke, Michele G. Cyr, and Carol Landau. 2002. "Evaluating a Lesbian and Gay Health Care Curriculum." *Teaching and Learning in Medicine* 14 (4): 244–48.
8. Ufomata, Eloho, Kristen L. Eckstrand, Peggy Hasley, Kwonho Jeong, Doris Rubio, and Carla Spagnoletti. 2018. "Comprehensive Internal Medicine Residency Curriculum on Primary Care of Patients Who Identify as LGBT." *LGBT Health* 5 (6): 375–80.
9. Dhingra, N., Bonati, L. M., Wang, E. B., Chou, M., & Jagdeo, J. (2019). Medical and aesthetic procedural dermatology recommendations for transgender patients undergoing transition. *Journal of the American Academy of Dermatology*, *80*(6), 1712–1721.
10. Yeung, H., Luk, K. M., Chen, S. C., Ginsberg, B. A., & Katz, K. A. (2019a). Dermatologic care for lesbian, gay, bisexual, and transgender persons: Epidemiology, screening, and disease prevention. *Journal of the American Academy of Dermatology*, *80*(3), 591–602.
11. Yeung, H., Luk, K. M., Chen, S. C., Ginsberg, B. A., & Katz, K. A. (2019b). Dermatologic care for lesbian, gay, bisexual, and transgender persons: Terminology, demographics, health disparities, and approaches to care. *Journal of the American Academy of Dermatology*, *80*(3), 581–589.

This article is protected by copyright. All rights reserved

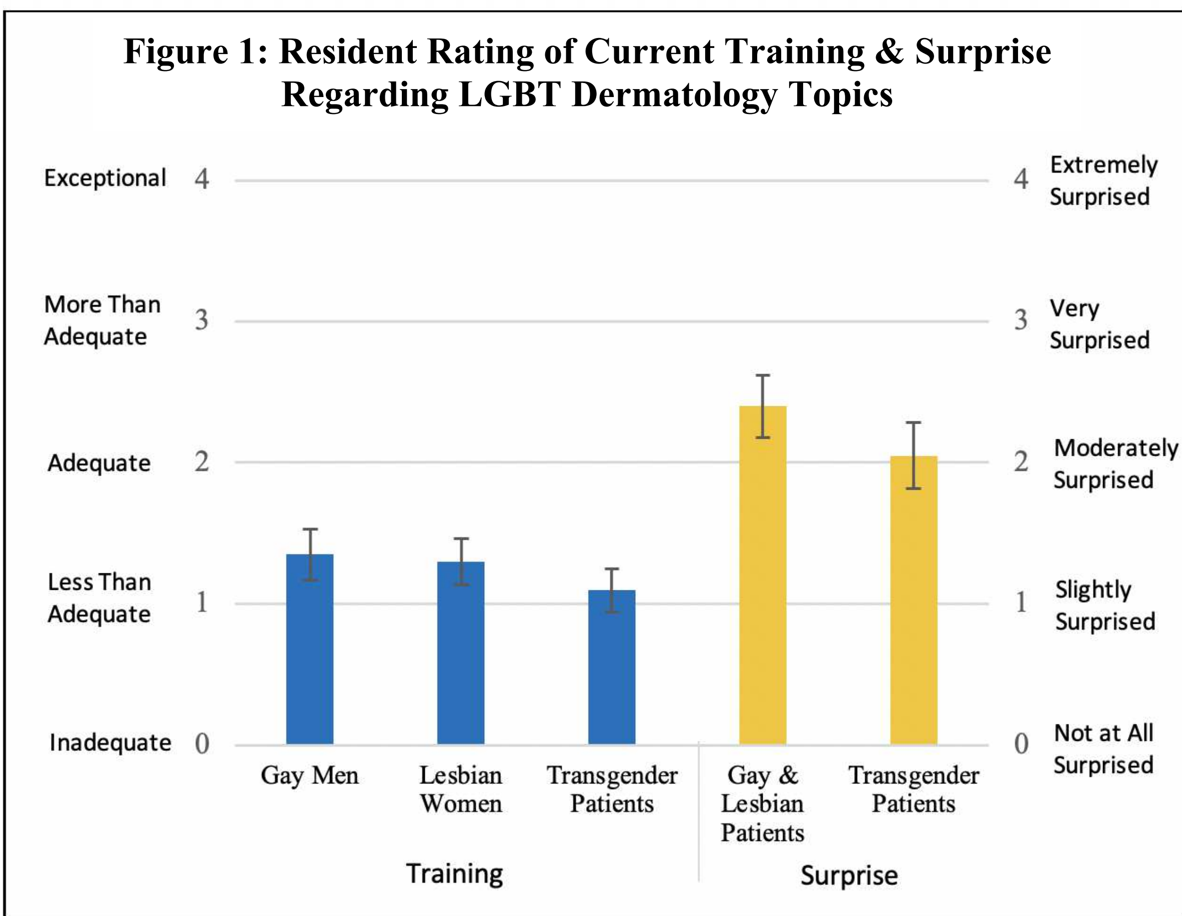

Figure 1: Bar graphs indicate survey responses of residents regarding baseline training in dermatologic concerns of gay men (n=20), lesbian women (n=20), and transgender patients (n=21) (blue bars, scale "inadequate" to "exceptional"), as well as level of surprise upon learning

This article is protected by copyright. All rights reserved

about dermatologic concerns of gay and lesbian patients (n=20) and transgender patients (n=21) (yellow bars, scale “not at all surprised” to “extremely surprised”). Data are displayed as mean ± S.E.

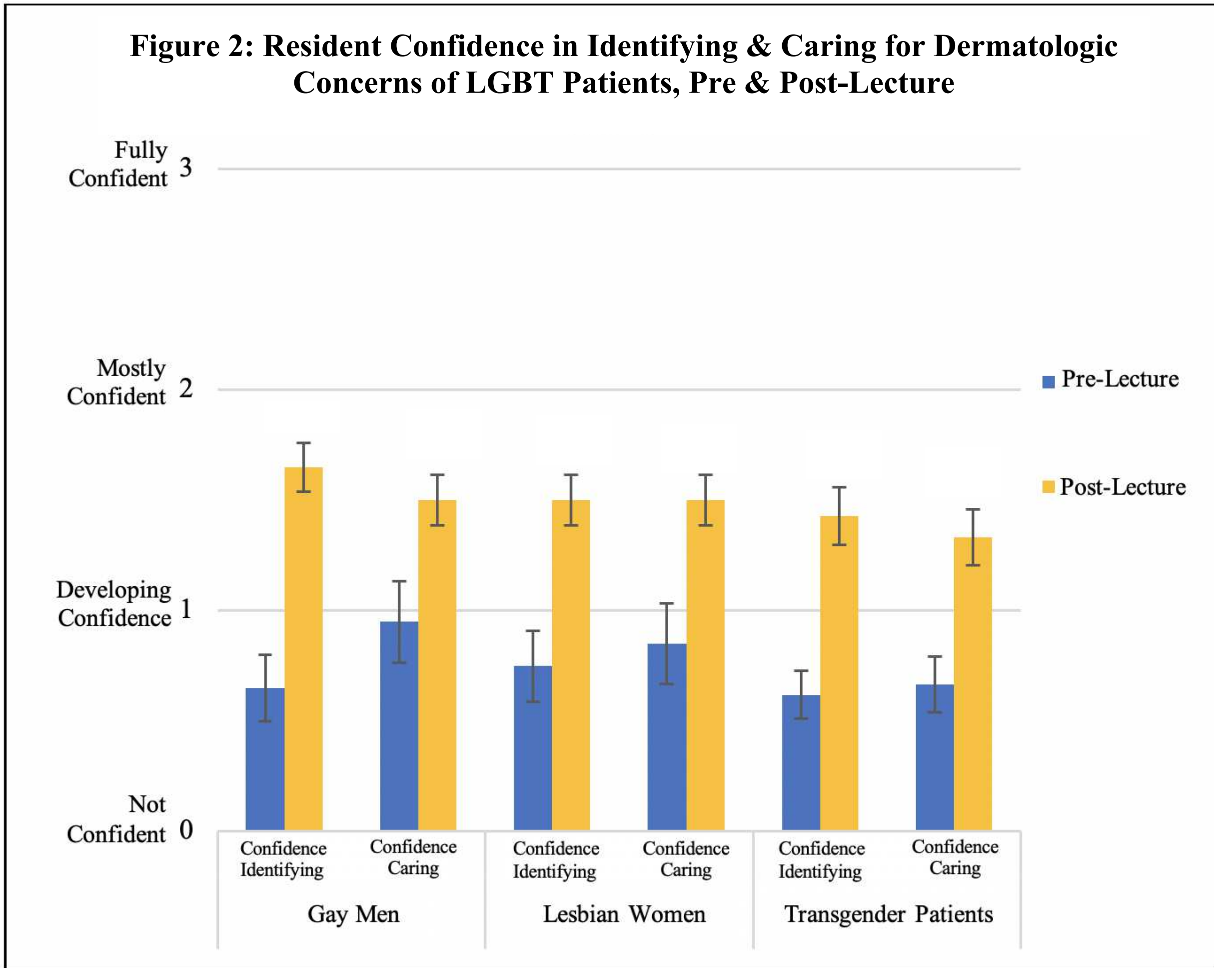

Figure 2: Bar graphs indicate survey responses of residents before (blue bars) and after (yellow bars) implementation of our LGBT curriculum with respect to confidence identifying and confidence caring for dermatologic concerns of gay men (n=20), lesbian women (n=20), and transgender patients (n=21). Data are displayed as mean ± S.E.

This article is protected by copyright. All rights reserved