Original Research

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Skincare from the inside out: a pilot project addressing social determinants of health through dermatology

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ABSTRACT

Background: Many women's shelters across the nation have programs that emphasize and empower women through career workshops and skills training. However, what is not typically addressed is their dermatological and mental health needs, which are equally important.

Objective: Through this pilot project, we aim to address the diverse interrelated issues concerning the whole woman and her body/mind systems including skin cancer awareness, skincare, healthy sun habits, self-esteem, mental health, and stress management. By addressing the woman holistically, we hope to positively impact the way she views and values herself.

Methods: We partnered with a local women's shelter to host a seminar focused on dermatological and mental health education. Pre- and post-seminar surveys were collected from participants. Surveys were anonymous and aimed to evaluate the success and efficiency of the workshop to guide and improve future seminars. The seminar had three workshops: skin cancer and sun protection, skincare, and mental health and wellness. Upon completion of the seminar, the attendees were provided with the opportunity to receive free skin examinations by two board-certified dermatologists, and referrals were made to Northeast Ohio Medical University's Student-Run Free Clinic. Upon completion of the seminar, attendees were provided with items such as sunscreen, skincare, and mental health resources.

Results: The "Skincare from the Inside Out" pilot project proved to be beneficial to residents of both Norma Herr Women's Shelter.

Limitations: Limitations of this study were the small sample size (n = 15), due to participation limitations during the COVID-19 pandemic.

Conclusion: Ultimately, to reduce the morbidity and mortality of dermatologic conditions associated with homelessness, it is imperative to address upstream social determinants of health. Future development of this pilot project will aim toward educating medical professionals on the unique and complex dermatologic and mental health needs of women experiencing homelessness.

Keywords: community outreach, mental health, skin cancer, skincare

Introduction

Current estimates suggest that over 220,000 women experience homelessness in the United States on any given night and that women and their families represent the fastest-growing cohort of the homeless population.[1,2] Healthcare disparities are particularly distressing for women experiencing homelessness (WEH).[3,4] Studies have shown that compared to the general population, WEH face a more comprehensive range of health

What is known about this subject regarding women and their families?

- Health and healthcare disparities among homeless people are particularly distressing for women experiencing homelessness.
- Compared to the general population of women, health disparities among homeless women include higher mortality rates, poor overall health status, and mental illness.
- Homeless women are less likely to have regular sources of care, such as health insurance, cancer screening, adequate prenatal care, appropriate ambulatory care, and specialty care for specific disorders.
- People experiencing homelessness have a disproportionately high prevalence of dermatology-related concerns.

What is new to this article with respect to women and their families?

- The "Skincare from the Inside Out" pilot project proved beneficial for women experiencing homelessness.

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International Journal of Women's Dermatology (2023) 9:e094

Received: 5 July 2022; Accepted 7 June 2023

Published online 14 August 2023

DOI: 10.1097/JW9.0000000000000094

disparities, exhibit higher mortality rates and mental illness, and report lower overall well-being.[4] Regarding access to health care, WEH are less likely to have health insurance, regular cancer screening, health maintenance examinations, prenatal care, and access to specialty care facilities.[4]

Interestingly, it has been shown that persons experiencing homelessness (PEH) exhibit a much higher prevalence of dermatology-related conditions and concerns.[5] Many factors contribute to an increased skin disease burden, such as prolonged exposure to extreme weather conditions, inadequate sun-protective clothing, limited personal hygiene resources, and residing in overcrowded living conditions, such as shelters or community homes.[5] Additionally, PEH face challenges in treating chronic dermatological conditions. Many face contraindications to treatment due to comorbid diseases such as HIV/AIDS, tuberculosis, autoimmune diseases, or hepatitis.[5,6] Other factors inherently associated with homelessness, such as food insecurity, psychiatric illness, and exposure to potentially hazardous lifestyles and living conditions, may negatively affect the extent and severity of skin diseases.[7] Although many dermatological conditions experienced by PEH may be easily diagnosed and treated in the general population, limited access to health care may lead to the progression of these conditions to the point where they are deemed irreversible or even life-threatening.[7] As a result, PEH patients may develop skin infections, inflammatory dermatoses, and traumatic injuries more frequently than those who are not homeless.[8] It is estimated that almost 20% of visits to emergency departments and accessible community health clinics by PEH are due to dermatology-related concerns.[8]

Additionally, while approximately 1 in 5 Americans will develop skin cancer during their lifetime, this statistic is presumed to be even higher for PEH.[9,10] A potential explanation for this is that PEH are less likely to have regular access to health care and may be more likely to delay or neglect primary preventative care and screening tests due to financial burdens.[10] Furthermore, many PEH lack education regarding skin cancer prevention and safe sun habits despite spending significant portions of their day outside in direct sunlight.[10] Therefore, it is evident that knowledge of and access to an appropriate skin care regimen are critical for improving the dermatological health of this population.

WEH are less likely to pursue medical care for several reasons. Many fear that they will face stigmatization from providers because they are homeless, while others may have underlying untreated psychiatric diseases that hinder their ability to seek care.[5] It is estimated that a quarter of all people in homeless shelters experience some form of mental illness,[11] and limited access to mental health services is a common complaint among WEH.[12] Additionally, people with mental illness are more likely to become homeless than the general population. A 2008 survey conducted by the US Conference of Mayors showed that mental illness was the third largest cause of homelessness in adults across 25 cities, suggesting that mental health status and homelessness are strongly associated with one another.[13]

Women's shelters are at the frontlines, providing the necessary support and resources for this population to reenter society. Many women's shelters across the nation have programs that aim to empower women through career workshops and skill training to support them in their journey out of homelessness. However, dermatological and mental health needs, which affect health outcomes, are not typically addressed in these programs. A robust understanding of the benefits and shortcomings of women's shelter experiences is paramount for successfully addressing the needs of WEH to better support them during societal reintegration.[12] Therefore, the authors conducted a needs assessment by interviewing several volunteer coordinators of battered women's shelters in Northeast Ohio (NEO). The goal of the needs assessment was to identify how medical students and local dermatologists could bridge the gap between the current services provided by these shelters and their knowledge and resources. This led to the development of a 3-part seminar based on the specific needs of WEH in the NEO community. The needs assessment identified WEH as a group of individuals who could benefit from both skin cancer and skin care education, as well as from mental health education. A literature review was conducted to examine the mental health components of seminars. One study showed that guests at a women's shelter experienced higher levels of satisfaction when the staff employed feminist-centered models of intervention that capitalized on women's strengths and capabilities.[12] This was the model and approach adopted when formulating this section of the seminar.

Through this dermatology pilot project, we aimed to address diverse interrelated issues concerning the entire woman and her body/mind, including aging, skin cancer awareness, skincare, healthy sun habits, self-esteem, mental health, stress management, and body image. In addition, by addressing women holistically, we hope to positively influence how they view and value themselves. Our ultimate hope with this seminar is that when she leaves the shelter, she will reenter society with the knowledge and confidence that she can successfully maintain her overall health and well-being.

Methods

The seminar was conducted at the Norma Herr Women's Shelter (a division of the Young Women's Christian Association) in Cleveland, Ohio, on 2 separate days: January 11 and January 18, 2022. The seminar was followed by a survey to collect data on its efficacy. To develop the seminar curriculum, several volunteer coordinators of battered women's shelters in NEO were interviewed to determine how medical students and local dermatologists could utilize their resources and knowledge to meet the unique dermatological and mental health needs of women at the shelter. A board-certified dermatologist and psychiatrist were consulted to develop an interactive and educational curriculum based on the information gathered from the interviews. The curriculum is divided into a 3-part seminar series, comprising mental health and wellness, skincare, skin cancer, and sun protection. The seminar curriculum aims to address mental health and its importance, implementation of self-care and wellness, daily skincare routines, review of skincare products, skin cancer prevention, and skin change recognition (Supplementary Materials S1–S4, http://links.lww.com/IJWD/A22). Five Northeast Ohio Medical University (NEOMED) medical students led the 3 educational workshops.

All uninsured and homeless women over the age of 18 years were eligible to participate in the study. A flyer (Supplementary Material S5, http://links.lww.com/IJWD/A26) was posted at the shelter to recruit the participants. Due to the COVID-19 social distancing protocols, only 10 women were allowed in a room at a time. The participants included the first 17 women to sign up for, and the seminar was conducted twice to accommodate all 17 women. Although 17 women were involved in the seminar, only 15 completed the postseminar survey due to personal time constraints. Demographic data were not collected in this study.

The women completed an anonymous preseminar survey that assessed their preexisting knowledge of the topics covered by the 3 seminars (healthy coping mechanisms, skin cancer, skincare, and sunscreen) and an anonymous postseminar survey following the seminars. Examples of the curriculum embedded in the seminars can be found in the supplementary material section. Participants were given educational handouts and were provided with samples of sunscreen that satisfied the American Academy of Dermatology Criteria as well as other skincare products such as cleansers, moisturizers, and serums targeting different skin concerns (dry, sensitive, aging, and oil-prone).[14] Upon completion of the seminar, all the participants were offered free skin examinations by a board-certified dermatologist. Participants with comorbid medical conditions were referred to the NEOMED Student-Run-Free Clinic to receive additional healthcare at no cost.

The pre- and post-seminar survey results were used to assess the educational components of the seminars. A paired *t* test was conducted to compare changes in the pre- and post-seminar survey results. Missing responses were excluded from the analysis.

This project protocol was reviewed by NEOMED through their Institutional Review Board and deemed to be exempt from human subjects' research since the purpose of the pilot project was not to draw conclusions about the participants but to serve as an anonymous metric to approximate the study's efficacy. The survey was subsequently vetted and approved by NEOMED's graduate studies research survey team.

Results

Table 1 presents the results of pre- and post-seminar surveys. There were 2 groups of questions. One group focused on the dermatology component of the seminar, and the others focused on the mental health portion. Questions 1, 4, 7, 13, and 14 assessed knowledge about skin cancer, and all statistically increased ($P \leq .001$) after the completion of the seminar (Table 1). Questions 3, 8, and 9 highlighted basic skincare knowledge, which increased in number after the seminar. Questions 2, 5, 10, 15, and 16 reflected participants' understanding of their mental health and wellness. The only element that did not change after the seminar was the participants' ability to feel as though they could express their emotions (Question 10, $P = .082$).

The goal of the seminar's mental health component was to help participants recognize their feelings and stressors while identifying daily coping techniques and stress relief. The seminar was effective in helping participants identify healthy versus unhealthy coping mechanisms and feel confident about their own abilities, with 100% of participants acknowledging that they could do both after the workshop ($P = .019$). Question 10, which asked participants if they felt like they were able to express their emotions, did not show a significant increase after the seminar. This can be explained by the fact that 11 of the 15 participants felt that they could express their emotions before the seminar versus 14 of the 15 after the seminar ($P = .082$). In addition, there was a statistically significant increase in participants who felt that they could locate free dermatology and mental health care facilities near them after the seminar ($P < .001$ and $P = .019$, respectively).

Discussion

The "Skincare from the Inside Out" pilot project benefited Norma Herr Women's Shelter residents. This success was particularly notable in terms of the awareness and knowledge of skin cancer. The mental health aspect of the seminar represents a more nuanced topic among this population, making it difficult to convey it in a short seminar and assess the success of mental health and wellness education. Education on these topics would be more effective if incorporated into a longitudinal curriculum, such as through weekly group sessions or counseling services.

The mental health component of the seminar introduced ways in which women could identify specific coping mechanisms, become educated about the importance of self-care and wellness, and formulate self-care plans to prioritize their mental health every day. Mental health education must continue to be addressed in homeless shelters due to the many stressors and complexities of WEH, such as increased vulnerability to food insecurity, poor health, and violence.[15] While some women have preexisting mental health conditions that lead to homelessness, many more women develop mental health issues due to the unique stressors of becoming homeless.[15] Furthermore, little is known about the specific coping strategies that WEH uses when adjusting to the pressures of living without a home.[16] Therefore, mental health education and access to resources should be integral components of programs aimed at serving homeless populations.[17,18] Additionally, the experience of homelessness is exacerbated by a lack of access to health care and reduced health literacy in WEH. To provide basic human rights, such as the right to food, water, work, health, and housing, it is essential to consider homelessness as a multidimensional concept that can affect mental health and well-being, possibly leading to multimorbidity.[14] Therefore, to secure fundamental human rights, it is crucial to target the cycle of homelessness.

The limitations of this study were the small sample size ($n = 15$) and the fact that not all the women completed the postseminar survey. Only the first 17 women to sign up at the shelter were permitted to attend due to space limitations and adherence to the COVID-19 social distancing protocols. In addition, 2 women left the seminar early, reducing the sample size from 17 to 15. Future research will aim to recruit more participants for our study, as a 1-week snapshot of a small population of women may not accurately reflect the success of the project. One way to accomplish this is by developing a virtual format for the seminar, as many women's shelters do not host in-person events due to the COVID-19 pandemic. Shelters expressed their ability to host group sessions in community rooms and host Zoom sessions with medical students and dermatologists, limiting their physical content with outside personnel. This would allow the project to be hosted

Table 1

Pre- and post-seminar survey results

Question*	Pre-seminar	Post-seminar	P-value
1. I know what the ABCDEs of Melanoma are	Yes = 2, No = 13	Yes = 14, No= 1	<0.001
2. I can identify healthy and unhealthy coping mechanisms	Yes = 10, No = 5	Yes = 15, No = 0	0.019
3. I know the basic steps of a skincare routine	Yes = 7, No = 8	Yes = 15, No = 0	0.001
4. I understand what a suspicious mole looks like	Yes = 7, No = 8	Yes = 15, No = 0	0.001
5. I feel confident in myself and my abilities	Yes = 10, No = 5	Yes = 15, No = 0	0.019
6. I understand the importance of sunscreen in protecting skin cancer	Yes = 5, No = 10	Yes = 13, No = 2	0.001
7. I know what SPF means	Yes = 5, No = 10	Yes = 15, No = 0	<0.001
8. I know what causes acne	Yes = 6, No = 9	Yes = 15, No = 0	<0.001
9. I understand how my skin acts as a barrier to the environment	Yes = 4, No = 11	Yes = 15, No = 0	<0.001
10. I feel like I can express my emotions	Yes = 11, No = 4	Yes = 14, No = 1	0.082
11. I know where to find free dermatology care near me	Yes = 4, No = 11	Yes = 15, No = 0	<0.001
12. I know where to find free mental health resources near me	Yes = 10, No = 5	Yes = 15, No = 0	0.019
13. I understand what skin cancer is	Yes = 5, No = 10	Yes = 13, No = 2	0.001
14. I understand how what causes skin cancer	Yes = 5, No = 10	Yes = 13, No = 2	0.001
15. I care about my mental health and wellbeing	Yes = 9, No = 6	Yes = 13, No = 2	0.041
16. I can identify coping mechanisms that can help me with my mental health	Yes = 8, No = 7	Yes = 13, No = 2	0.019

* Missing answers were excluded from the analysis; n = 15.

regularly by medical students and residents in their communities. The online format also allows the expansion of seminars to include communities further away from medical schools. Another area of exploration and growth within this project is the investigation of the weight of intersectionality in dermatological health. While demographic data were not obtained during the seminar, observing how skincare and mental health awareness are associated with Fitzpatrick skin types and the various social determinants of health would be of interest in future studies.

Ultimately, to significantly affect the morbidity of dermatological conditions associated with homelessness, it is imperative to focus on the upstream social determinants of health, such as housing, financial support, and food insecurity, to address the downstream healthcare-related consequences of homelessness.[19] As mentioned previously, WEH face a unique disease burden and challenges in the management of common dermatological conditions. One previously discussed method to address these concerns is the development of a person-centered care plan.[20] The future development of this pilot project will aim to educate medical professionals on the unique and complex dermatological and mental health needs of WEH. This begins with educating medical trainees on the unique dermatological concerns of the WEH experience. One way to accomplish this is to include formal didactics on caring for this population in dermatology residency and medical school curricula and to encourage trainee participation in seminars hosted at local homeless shelter clinics, as described in this article.

Conflicts of interest

None.

Funding

None.

Study approval

N/A

Author contributions

KMK and JG contributed to the design of the study. KMK, RK, SG, PS, and AN contributed to the implementation of the research and the acquisition, analysis, and interpretation of data. KMK, RC, RK, SG, PS, and AN contributed to drafting the article.

Acknowledgments

We wish to acknowledge the support of this project by Nancy A. Sutton, Executive Dermatology Sales Manager for La Roche Posay, and CeraVe, who donated skincare products to women during this seminar.

Supplementary data

Supplementary material associated with this article can be found at http://links.lww.com/IJWD/A22 and http://links.lww.com/IJWD/A26.

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