Contents lists available at ScienceDirect

AJPE

American Journal of Pharmaceutical Education

journal homepage: www.elsevier.com/locate/ajpe

Brief Report

Pharmacy Students' Lived Experiences With Atopic Dermatitis Inform Perceptions of Learning in the Curriculum



Abdi Berk Cayci^{a,b,*}, Adam Pattison Rathbone^a, Laura Lindsey^a, Charlotte Richardson^a

^a School of Pharmacy, Faculty of Medical Sciences, Newcastle University, Newcastle upon Tyne, United Kingdom
^b Faculty of Pharmacy, Hacettepe University, Ankara, Türkiye

ARTICLE INFO	A B S T R A C T
<i>Keywords:</i> Atopic dermatitis Pharmacy student Pharmacy education Lived experience	Objective: To explore the impact of lived experiences of pharmacy students with atopic dermatitis (AD) on perceptions of learning in pharmacy curriculum. Methods: An exploratory qualitative study was conducted with pharmacy students in the United Kingdom to understand how their lived experiences affect their perception of AD in pharmacy curriculum. Semistructured interviews were conducted, and a thematic analysis method was followed. Firstly, codes were created, and then relevant codes were combined to identify themes. Results: Thirteen pharmacy students were interviewed. Study findings showed pharmacy students support teaching with a holistic approach to management and patient-centered care in AD in pharmacy curriculum. Although students had empathy and moral support for patients, they also described a need for teaching on the mental health effects of AD in pharmacy education. Conclusion: This brief report explores the role of lived experience of pharmacy students in considering the provision of holistic, patient-centered care in AD teaching in pharmacy education. Participants also suggest the need within the pharmacy curriculum for training to provide mental health advice to patients with AD.

1. Introduction

Atopic dermatitis (AD), also known as atopic eczema, is seen as a worldwide chronic skin condition impacting approximately one-fifth of people in developed countries.¹ As pharmacies are front-line health care providers due to their accessibility and locations,² pharmacists have an important role in the management of AD.³ However, knowledge of AD management of pharmacists, particularly in the use of topical corticosteroids (TCs), is considered low.⁴ This is even lower in pharmacy students, particularly regarding side effects and classification of TCs.⁵ Therefore, although pharmacists should be well prepared to provide counseling to patients with AD, teaching of AD in pharmacy students as future pharmacists in counseling patients in practice.

In pharmacy education, patient-centered care, described to be respectful and open to patients' preferences and needs, is taught to enable pharmacy students to use this care in practice.^{6,7} According to lived experiences of patients, AD inevitably affects the quality of life of patients⁸ and patients' different treatment plans, depending on severity of the condition, involve self-management accompanied by support from health care professionals.⁹ However, patients with AD think their condition and management may be still underestimated by health care professionals.⁸ As such, the understanding and education of health care professionals, including pharmacists, is crucial for patient satisfaction and providing better care in the management of AD.

Pharmacy students with lived experiences of AD may differ from other pharmacy students without AD in practice regarding knowledge and experience of pharmacological and nonpharmacological management of AD. Lived experiences of AD may enable pharmacy students to draw on their own personal history, expertize, and practices, as well as formal learning from pharmacy curriculum. Nursing students with different chronic conditions, including psoriasis, have reported "learning from self to care for others."¹⁰ However little work has explored or investigated how pharmacy students with AD employ their lived experiences to develop knowledge and skills about pharmaceutical care. The aim of this study is to explore how pharmacy students' lived experiences influence their perception of AD in pharmacy curricula.

https://doi.org/10.1016/j.ajpe.2024.100651

Received 5 October 2023; Received in revised form 25 December 2023; Accepted 7 January 2024 Available online 11 January 2024

^{*} Corresponding author. *E-mail address*: A.B.Cayci2@newcastle.ac.uk (A.B. Cayci).

^{0002-9459/© 2024} The Author(s). Published by Elsevier Inc. on behalf of American Association of Colleges of Pharmacy. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

2. Method

2.1. Participants and Setting

A convenience sample was recruited by distribution of an invitation to take part in the study via email to pharmacy students in one pharmacy school the United Kingdom (UK). The pharmacy school delivers a four-year integrated Master of Pharmacy program accredited by the General Pharmaceutical Council. After the completion of an Master of Pharmacy program, a year of foundation training needs to be completed to be qualified as registered pharmacist in the UK. Pharmacy students were invited to participate if they met the inclusion criteria of diagnosed with AD and have been prescribed any medicine for AD. Those that agreed to take part were sent copies of participation information sheets and consent forms, and arrangements were made for interviews to be conducted at their convenience. The study protocol was approved by a review committee on the protection of human participants or its equivalent.

2.2. Main Outcome Measures

Perceptions of pharmacy students with AD regarding their learning in pharmacy education.

2.3. Data Collection and Analysis

One-to-one semistructured qualitative interviews were conducted in person or online between February and March 2023. Interviews were recorded using a digital recorder, transcribed verbatim, and anonymized (by A.B.C.). Interviews were analyzed using inductive thematic analysis using a constant comparison approach in a six-phase process.¹¹ All transcriptions were reviewed, and then initial coding was done on NVivo 1.6.1 software by A.B.C. Significant statements and experiences from participant quotes were categorized into relevant codes. After coding was complete, it was inspected by two authors (A.P.R. and L.L.) to assess coherence and bias. Codes were clustered to identify subthemes and themes. Themes were discussed by all authors until consensus.

3. Results

Thirteen interviews were conducted with pharmacy students aged from 18 to 24. The length of the interviews ranged from 21 to 45 min, with an average of 36 min. The majority of participants were women (n = 12), and their ethnicity was varied (Table 1).

Two themes were identified: (1) lived experience adding value to learning and (2) visibility in the curriculum. Table 2 outlines the main themes and subthemes with associated quotes that are attributed with participant numbers (P1, P2, etc). Quotes were chosen to illustrate the meaning of the theme by A.B.C. and agreed upon by consensus with

Table 1

Demographic Characteristics of Participants.

Characteristics	Data
Age, years, mean \pm SD (range)	20.9 ± 1.4 (18-24)
Gender, <i>n</i> (%) women	12 (92.3)
Ethnicity, n (%)	
White/White British	7 (53.8)
Black/Black British	1 (7.7)
Asian/Asian British	3 (23.1)
Middle eastern	2 (15.4)
Year, n (%)	
First	2 (15.4)
Second	2 (15.4)
Third	6 (46.1)
Fourth	3 (23.1)

others.

3.1. Theme 1: Lived Experience Adding Value to Learning

This theme illustrates how lived experiences of pharmacy students with AD contribute to their learning in pharmacy education.

A few participants stated they were taught in pharmacy education how to implement patient-centered care to establish a treatment that is decided in collaboration between patient and pharmacist. They believed that besides knowing treatment options to suggest patients, integrating the learned patient-centered approach through their pharmacy education would help participants support AD management more (P5). Some participants considered being asked about the preference in selection of treatment by a pharmacist with lived AD experience would make patients trusting and comforted (P5).

Half of participants expressed that some lifestyle approaches, such as diet change and monitoring triggers, should be first applied before undertaking a treatment management plan (P1, P9). This was because the participants claimed they benefited from those approaches in their own management (P13). They thought more attention should be paid to lifestyle approaches as well as pharmacological management in pharmacy curriculum (P2) because they felt any pharmacy student without experience of AD could mainly give medication-based advice rather than lifestyle modifications (P13).

Majority of participants mentioned that AD is a common condition and repeatedly expressed that it impacts both physically and mentally. Therefore, the overwhelming majority of participants agreed that pharmacy students with lived experiences of AD would have greater empathy with understanding the impact of AD and offer moral support to patients more than any other pharmacy students without lived experiences of AD (P8).

3.2. Theme 2: Visibility in the Curriculum

This theme defines some advantages of dermatology education participants have benefited in their own management and also lack of some points in the curriculum.

3.2.1. Takeaway Tips from Lectures

Dermatology lectures influenced participants' own management of AD. Several did not know the difference between creams and ointments before studying pharmacy (P7). One participant started using an ointment mentioned in a lecture afterward and benefited from this. Likewise, another participant found the use of antihistamines in the management of AD through a dermatology lecture, and using them has been helpful to alleviate flare-ups. Despite using TCs to manage their AD, one participant reported learning about the application of these for the first time as part of their pharmacy training and had not been familiar with 'the fingertip unit' prior.

3.2.2. Deficiencies in Dermatology Education

Participants reported that the dermatology education in pharmacy was focused on pharmacological management of the physical symptoms of AD. Some participants expressed a desire for a greater focus on mental health support for patients with AD into the pharmacy curriculum (P13). They felt counseling points about how they can help patients experiencing poor mental health due to the impact of AD should be given in the pharmacy education. Even though participants reporting knowing how to cope with the poor mental health impact of AD from their own experiences, they wanted more mental health support with the ongoing management (P9)—both to improve their own management and to support managing patients as pharmacist in the future.

In addition, one participant reported strong beliefs that dermatology education was lacking, identifying poor teaching of both the theoretical and scientific background of AD as well as the applied elements relevant to practice (P11). A participant claimed to have known more

Table 2

Main Themes and Subthemes with Associated Quotes.

Themes and subthemes	Quotes
1-Lived experience adding value to learning	
	"I think the university, like the things that would help- I mean the thing that I learned from the university that would help is patient centered care." (P5)
	"That [being asked about treatment preference by a pharmacist] would just help them out and making them or patients knowing
	that someone cares for them especially in this scenario patients with eczema [AD] that would help them a lot, put them at ease.' (P5)
	"You know there's lots of different options you can go through, and you could definitely explore more of the non-pharmacologica sides of it to treat first." (P1)
	"I think the first priority is the lifestyle changes. If they observe like lifestyle changes, they don't need to use medicines very often, and it will help like improve their health." (P9)
	"I do think I will have more of an understanding probably of like triggers. So probably like relate to my own experience of things that like helps me, like not washing my hands with soaps that I'm not familiar with, and things like that." (P13)
	"I just can't really remember seeing too much on it [lifestyle approaches] in curriculum, but like more, just like counseling points, just kind of things that non-medicated things that could help skin conditions as well because that would be helpful to both the professional and the patient." (P2)
	"I'll probably be able to offer more practical advice rather than just you know steroid creams because I think that's quite- yeah anyone without eczema [AD] experience can give advice on steroid creams and emollients." (P13)
	"I think I have much more awareness than other student who hasn't had that disease. I can show more empathy to them, maybe show them some like solutions to the difficulties that they mention because I might have experienced them in my life." (P8)
2-Visibility in the curriculum	
	"I didn't know the ointments and gels and things were- I didn't know the difference. I knew there was a difference, [but] I didn'
Takeaway tips from lectures	know the difference between like the creams, emollients, ointments, gels, all of that." (P7)
	"I guess probably more [education] about psychological impacts of it and yeah how it can impact people's lives or relating to more
Deficiencies in dermatology education	than just, you know, management, it's skin condition, things like that." (P13)
	"As I said, last year even though I was mature enough to be able to accept that flare-up, I got really affected by that and I was really depressed so maybe the mental health management can be an important part of it [education] as well." (P9)
	"I think what we're lacking in terms of skin conditions is the practice side because a lot of the practice that's at the university is more like, I don't know, I don't want to say big conditions, but more like big killers rather than dernatology," (P11)

about AD management due to their lived experiences than what was taught in the lectures.

4. Discussion

The aim of this study was to explore how lived experiences of pharmacy students with AD influenced their perception of taught content in pharmacy curricula. Findings suggest lived experiences of students may contribute to their learning in pharmacy curricula by advocating for patient-centered care and empathizing with patient concerns around the specific condition, in this study AD. In addition, participants emphasized the significance of teaching lifestyle approaches besides pharmacological management in curricula as these approaches have been harnessed and are perceived as helpful in lived experiences. Participants think if a holistic approach, including both pharmacological and lifestyle approaches, is better embedded in pharmacy education, this will improve future pharmacists' counseling and improve patient care since participants stated this approach contributed to their management as patients. This is corroborated with a previous work by Guraya and colleagues¹² stating lifestyle approaches must be taken into consideration for holistic management of AD.

Participants described psychological effects of AD are important and need to be better considered in pharmacy education. Prior research has shown an association between AD and mental health comorbidities; over a third of patients with AD also had mental health conditions.¹³ Similarly, a report has shown that young people with AD sought emotional support from peers and health care professionals; meeting a person with the same condition and sharing common experiences helped them feel less embarrassed, reducing distress.¹⁴ However, it is evidenced that patients' emotional support needs around their diagnosis are not often met by health care professionals.¹⁴ Although our current study where participants reported using their lived experiences of AD to empathize with patients and sharing useful tips to manage the physical and psychological symptoms of the condition shows patients' emotional needs may be fulfilled by empathy of pharmacists with AD, greater focus on mental health support should be considered in pharmacy education for all students to better support patients' mental

health in the future.

Collectively, this study demonstrates trainees may be able to draw on their lived experiences of a given disease to learn more about disease management but also inform education in pharmacy curriculum, particularly supporting holistic and patient-centered based education and highlighting the importance of mental support teaching in pharmacy education.

4.1. Implications for Policy and Practice

This work is significant because pharmacy education and training are shifting globally away from a product-focused profession to a patient-centered clinical role.¹⁵ This is most notably demonstrated in the UK, where the initial education and standards for pharmacy trainees have changed to enable newly qualified pharmacists to prescribe upon completion of their training.¹⁶ Our findings demonstrate that trainees may be able to draw reflexively on their own lived experiences of disease to inform their education and practice. Although our findings are situated with AD, they may be transferable to other conditions, syndromes, and issues relating to health and well-being. In the absence of lived experience of pharmacy students, patient voice may be an alternative to provide a similar impact in learning and empathy development. The findings provide policy makers and pharmacy educators with evidence to support curriculum interventions, which draw on students' or patients' own experiences, particularly in the curriculum design for the improvement of content delivery to be more empathetic reflecting realistic needs of patients for the curriculum and for the sustainability of patient-based teaching in pharmacy education.

4.2. Strengths and Limitations

The current study has limitations. Since the participants were from one university, the findings regarding the curriculum content may not be applicable to other universities. Moreover, a few participants were year 1 and had not completed teaching on skin conditions, so their views on curriculum were more hypothetical. This study did not include any comparison group, such as participants without AD or with other chronic conditions; this may require further research. The participants were mostly women, but there is evidence that AD is more prevalent in young women aged 12 to 24.¹⁷ Conversely, the study comprised diversity in relation to ethnicity.

5. Conclusion

In light of the lived experiences of pharmacy students with AD, this study has highlighted the importance of incorporating teaching of holistic and patient-centered care in pharmacy curriculum. In addition to relief of physical symptoms, psychological support also matters and may be lacking in current curriculum. Future pharmacists with lived experience of AD claimed they would offer empathy and moral support; however, they identified the need for teaching on this and how to support patients in this matter. To conclude, lived experiences are valuable to inform education and practice, and they should continue to be used to inform pharmacy education not only for AD but also other conditions.

Author Contributions

Conceptualization, Validation, Formal analysis, Investigation, Data curation, Writing – original draft, Writing – review & editing, Visualization, Project administration, Funding acquisition: A.B.C. Validation, Formal analysis, Data curation, Writing – review & editing, Supervision: A.P.R. Conceptualization, Validation, Formal analysis, Data curation, Writing – review & editing, Supervision: L.L. Writing – review & editing, Supervision: C.R.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgments

This study was supported by the Ministry of National Education of the Republic of Türkiye.

Funding/Support

The authors have no financial disclosures or conflicts of interest.

References

- Weidinger S, Novak N. Atopic dermatitis. Lancet. 2016;387(10023):1109–1122. https://doi.org/10.1016/S0140-6736(15)00149-X
- Alghurair SA, Simpson SH, Guirguis LM. What elements of the patient-pharmacist relationship are associated with patient satisfaction? *Patient Prefer Adherence*. 2012;6:663–676. https://doi.org/10.2147/PPA.S35688
- Wong ITY, Tsuyuki RT, Cresswell-Melville A, Doiron P, Drucker AM. Guidelines for the management of atopic dermatitis (eczema) for pharmacists. *Can Pharm J.* 2017;150(5):285–297. https://doi.org/10.1177/1715163517710958
- Cayci AB, Rathbone AP, Lindsey L. Practices and perceptions of community pharmacists in the management of atopic dermatitis: a systematic review and thematic synthesis. *Healthcare*. 2023;11(15):2159. https://doi.org/10.3390/ healthcare11152159
- Ashique KT, Kaliyadan F, Mohan S, Vijayan S, Chandrasekhar D. Knowledge, attitudes and behavior regarding topical corticosteroids in a sample of pharmacy students: a cross sectional survey. *Indian Dermatol Online J.* 2018;9(6):432–434. https:// doi.org/10.4103/idoj.IDOJ_143_18
- Nathan S, Woolley AB, Finlay L, Moye J. Teaching pharmacy students and residents patient-centered care through interviewing veterans. *Am J Pharm Educ*. 2021;85(8):8384https://doi.org/10.5688/ajpe8384
- Accreditation standards and key elements for the professional program in pharmacy leading to the doctor of pharmacy degree. Accreditation Council for Pharmacy Education; 2015. https://www.acpe-accredit.org/pdf/Standards2016FINAL.pdf. Accessed December 5, 2023.
- Birdi G, Larkin M, Knibb RC. A qualitative enquiry into the lived experiences of adults with atopic dermatitis. *EMJ Allergy Immunol.* 2020;5(1):78–84. https://doi.org/10. 33590/emjallergyimmunol/20-00112
- Zuberbier T, Beck LA, Bedbrook A, et al. Developing integrated care pathways for atopic dermatitis-challenges and unmet needs. *Clin Transl Allergy*. 2023;13(3):e12236https://doi.org/10.1002/clt2.12236
- Dailey MA. Needing to be normal: the lived experience of chronically ill nursing students. Int J Nurs Educ Scholarsh. 2010;7(1):15. https://doi.org/10.2202/1548-923X.1798
- 11. Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psychol. 2006;3(2):77–101. https://doi.org/10.1191/1478088706qp0630a
- Guraya A, Pandher K, Porter CL, et al. Review of the holistic management of pediatric atopic dermatitis. *Eur J Pediatr.* 2022;181(4):1363–1370. https://doi.org/10.1007/ s00431-021-04341-3
- Bekić S, Martinek V, Talapko J, Majnarić L, Vasilj Mihaljević M, Škrlec I. Atopic dermatitis and comorbidity. *Healthcare*. 2020;8(2):70. https://doi.org/10.3390/ healthcare8020070
- Ghio D, Greenwell K, Muller I, Roberts A, McNiven A, Santer M. Psychosocial needs of adolescents and young adults with eczema: a secondary analysis of qualitative data to inform a behaviour change intervention. *Br J Health Psychol.* 2021;26(1):214–231. https://doi.org/10.1111/bjhp.12467
- Anderson S. The state of the world's pharmacy: a portrait of the pharmacy profession. J Interprof Care. 2002;16(4):391–404. https://doi.org/10.1080/ 135618202100008337
- Standards for the initial education and training of pharmacists. General Pharmaceutical Council; 2021. https://www.pharmacyregulation.org/sites/ default/files/document/standards-for-the-initial-education-and-training-ofpharmacists-january-2021_final-v1.3.pdf). Accessed September 25, 2023.
- Johansson EK, Bergström A, Kull I, et al. Prevalence and characteristics of atopic dermatitis among young adult females and males-report from the Swedish population-based study BAMSE. J Eur Acad Dermatol Venereol. 2022;36(5):698–704. https:// doi.org/10.1111/jdv.17929