MOVING FROM INJUSTICE TO EQUITY: A TIME FOR THE PHARMACY PROFESSION TO TAKE ACTION

REVIEW

The Rx-HEART Framework to Address Health Equity and Racism Within Pharmacy Education

Lakesha M. Butler, PharmD,^a Vibhuti Arya, PharmD, MPH,^b Nkem P. Nonyel, PharmD, MPH,^c Terri Smith Moore, PhD, MBA^d

^a Southern Illinois University Edwardsville, School of Pharmacy, Edwardsville, Illinois

^b St. John's University, College and University of Health Sciences, Queens, New York

^c University of Maryland Eastern Shore, School of Pharmacy and Health Professions, Princess Anne, Maryland

^d American Association of Colleges of Pharmacy, Arlington, Virginia

Submitted February 10, 2021; accepted July 14, 2021; published October 2021.

Objective. To identify gaps in health equity and anti-racism education across the pharmacy curriculum, define the key health equity and anti-racism concepts that are suggested to be included across the pharmacy curriculum, and recommend a framework with steps to integrate health equity and anti-racism education across the pharmacy curriculum.

Findings. Other professions, such as social work, nursing, and medicine, have taken steps to address social injustice by integrating anti-racism into their curriculum. The National Association of Social Workers (NASW) advocates for “social justice and social change with and on behalf of clients” and included racism and health equity in its mission to eradicate “discrimination, oppression, poverty, and other forms of social injustice.” The American Association of Colleges of Nursing (AACN) curricular standards for baccalaureate nursing education provided four key changes for immediate implementation to overcome structural, individual, and ideological racism (SIIR). In October 2020, the Association of American Medical Colleges (AAMC) released a four-pillar framework to address racism.

Summary. The Academy must also actively engage in efforts to eradicate social injustices by incorporating into its curriculum topics that would result in the graduation of culturally and linguistically sensitive and structurally competent pharmacists. The five-phase framework, Pharmacy Health Equity Anti-Racism Training (Rx-HEART) provides guidance on how to accomplish the objectives described in this paper and the theme issue on social injustice.

Keywords: anti-racism, social justice, social determinants of health, health equity, pharmacy education

INTRODUCTION

While cultural competency and health disparities are being taught to various extents across the Academy, the inclusion of root causes for health disparities and how they relate back to the social determinants of health and patient outcomes is limited and inconsistent. In fact, content on cultural competency and health disparities has not fully been integrated into most pharmacy school curriculums and is often in the form of single didactic and case-based instruction instead of being threaded throughout the entire

curriculum.¹ The Pharmacist's Patient Care Process (PPCP) addresses five steps (collect, assess, plan, implement, and follow-up) and includes data collection based on a patient's lifestyle habits, preferences and beliefs, health and functional goals, and socioeconomic factors.² Adoption of health equity education as part of the patient care process can present an opportunity for students to further engage in discussions about their impact as pharmacists within the patient care process.

Standard 3.5 of the 2016 Accreditation Council for Pharmacy Education (ACPE) Standards for Doctor of Pharmacy degree programs and domain 3.5 of the 2013 Center for the Advancement of Pharmacy Education (CAPE) Educational Outcomes emphasize and provide guidance for the training of student pharmacists on the

Corresponding Author: Lakesha M. Butler, Southern Illinois University Edwardsville, School of Pharmacy, 200 University Park Dr., Edwardsville, IL 62026. Tel: 618-650-5119. Email: lwiley@siue.edu

approach to culturally sensitive patient care.^{3,4} However, the current pharmacy curricular structure lacks clear strategies for addressing anti-racism and health equity. Without a clear understanding of how structural racism and health inequities contribute to health disparities, these disparities can instead be attributed to individual choices and further perpetuate existing biases, thereby continuing or worsening health disparities.⁵ While health behaviors are a social determinant of health they account for 30% of the determinants of health outcomes; clinical care accounts for 20%, physical environment account for 10%, and social and economic factors, the largest category that determines health outcomes, account for 40%.⁶

Racial injustices and health inequities have been a part of our country's existence for centuries; however, the disproportionate effects of COVID-19 and police brutality on Black, Indigenous, People of Color (BIPOC) have created heightened awareness of how health inequities and racism greatly contribute to poorer health outcomes.^{7,8} Structural racism and health inequities cannot be addressed by single educational seminars or discussions because of its pervasiveness.

The use of terms such as *racism*, *white supremacy*, and *health inequities* have been traditionally avoided in the pharmacy curriculum because of the discomfort these terms may cause and because of a lack of desire within the Academy to face a tremendous reality. As health care professionals who take an oath to care for all, the pharmacists' role in dismantling structural and institutional racism is imperative to practice patient-centered care in a comprehensive manner. Dismantling structural racism will require bold movement, not only within the pharmacy curriculum but also by the profession at large. Evidence supports that there is a need for the profession of pharmacy to longitudinally implement new requirements of anti-racism, implicit bias, and health equity education in the pharmacy curriculum to facilitate the true practice of patient-centered care.⁹

The lack of minoritized faculty representation in pharmacy also must be addressed as it contributes to health disparities and the current educational gap in the pharmacy curriculum. The BIPOC faculty often are the primary advocates and instructors of topics related to diversity and equity. Hagan and colleagues note that underrepresented minority (URM) faculty usually teach students to care for underserved and minority patients by role modeling, and the absence of these faculty can have a negative effect on patient care.¹⁰ The absence of URM faculty can contribute to the curricular gaps regarding health equity and anti-racism education. According to the AACCP Special Taskforce White Paper, entitled "Diversifying Our Investment in Human Capital," a

diverse student body, faculty, administration, and staff can promote improvements in health equity.¹¹ Additionally, the presence of URM faculty, administrators, staff, and students can counter bias and white supremacy ideologies that minorities are inferior and should not be in places of power and influence. While the personal experiences and insights of BIPOC faculty can facilitate a more welcoming climate for URM students and are valuable in addressing racial injustices and health inequities, they should not be expected to engage in this often uncompensated and underrecognized work alone. It is the responsibility of all employees of an institution to create an environment where everyone can work together to improve the experiences of their colleagues, students, and patients.

Findings from a review of health equity and anti-racism education in medicine, nursing, and social work, as well as in pharmacy, are provided. A framework that addresses the intersections of social justice, health equity, and pharmaceutical care and facilitates the integration of these concepts throughout the pharmacy curriculum is proposed. Key topics to address health equity and anti-racism are outlined, and how these topics can be integrated using "champion" faculty to serve as educators of these critical topics is discussed. The objectives of this paper are to identify current gaps in health equity and anti-racism education across the pharmacy curriculum, define the key health equity and anti-racism concepts that are suggested to be included across the pharmacy curriculum, and recommend a framework and steps to integrate health equity and anti-racism education across the pharmacy curriculum.

REVIEW

Other health care disciplines have addressed health equity and anti-racism education by providing guidance on their implementation. Their experiences can be used as a guide for pharmacy. Training health professions students, including student pharmacists, to move from injustice to equity through education requires familiarity with key terms and concepts related to anti-racism and equity. Although the universe of these terms is vast, we offer some key terms and concepts in Table 1 to help get individuals and groups started.¹²⁻¹⁹

Medicine and Medical Education

In October 2020, the Association of American Medical Colleges (AAMC) released a four-pillar framework to boldly address racism.²⁰ Following the social-ecological model, the AAMC framework considers the overlapping interplay among different levels of human interaction including:²⁰ individual self-reflection and education about

Table 1. Definition of Key Health Equity and Anti-Racism Terms¹²⁻¹⁹

Terms	Definitions
Racism ¹²	The act of oppression based on race whereby a group of individuals use their social and institutional power to discriminate against another group through institutional policies and practices that ultimately shape the cultural beliefs and values of the dominating group.
Systemic racism ¹³	Includes “... structures, policies, practices, and norms resulting in differential access to the goods, services, and opportunities of society by ‘race’.”
Structural racism ¹⁴	Involves “the micro-level systems, social forces, institutions, ideologies, and processes that interact with one another to generate and reinforce inequities among racial and ethnic groups.”
Cultural racism ¹²	“... representations, messages, stories conveying the idea that behaviors and values associated with white people or ‘whiteness’ are automatically ‘better’ than those associated with other ‘racially’ defined groups; shows up in advertising, movies, history books, policies, laws.”
Institutional racism ¹²	Defines ways in which institutional policies and practices create disparate outcomes depending on race, leading to the creation of advantages for Whites and oppression and disadvantages for Black, Indigenous, People of Color (BIPOC).
Discrimination ¹²	The unequal treatment of a group of individuals based on “race, gender, social class, sexual orientation, physical ability, religion and other categories or characteristics.”
Implicit bias ¹²	An act of unknowingly or unconsciously holding negative associations that are expressed automatically, without conscious awareness.
Equity ¹⁵	The act of fairness and impartiality in the access and distribution of goods, resources, and services.
Racial equity ¹²	“Racial equity is the condition in which one’s racial identity no longer predicts how one fares in any given situation; is often considered a part of racial justice.”
Health equity ¹⁶	“... the fair, balanced rates and costs of health care coverage, access to care, quality of health care ... removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care.”
Racial justice ¹²	The act of systematic fair treatment and distribution of resources across races to ensure equitable opportunities and outcomes, and full and equal racial representation in the society.
Racial injustice ¹²	The opposite of racial justice where there are social inequality and disadvantages, and disparities based on races, which could be a result of historic oppression, inequality of inheritance, or overall racism and prejudice, especially against minority groups.
Social justice ¹⁵	Fairness and balance in the distribution of resources, opportunities, and privileges and affording equal economic, political, and social rights and opportunities to everyone, thereby creating a psychologically and physically safe and secure environment.
Anti-racism ¹²	The act of actively opposing racism through advocating for changes in political, economic, and social ideologies and practices.
Diversity ^{12,15}	The variety of social identities including differences in ideas, perspectives, values, race, ethnicity, gender, and any other construct used to categorize people within a space, community, institution, or society.
Inclusion ^{12,15}	The act of “authentically bringing traditionally excluded individuals and/or groups into the processes, activities and decision/policy making in a way that shares power; welcoming, not merely tolerating.”
Health disparities ¹⁷	“... preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experienced by socially disadvantaged populations.”
Social determinants of health ¹⁸	“Conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.”

(Continued)

Table 1. (Continued)

Terms	Definitions
Cultural competency ¹⁵	“The capacity to value diversity, manage the dynamics of difference, acquire cultural knowledge and adapt to diversity and the cultural contexts of the communities one serves.”
Structural competency ¹⁹	“The trained ability to discern how a host of issues defined clinically as symptoms, attitudes, or diseases (eg, depression, hypertension, obesity, smoking, medication “non-compliance,” trauma, psychosis) also represent the downstream implications of a number of upstream decisions about such matters as health care and food delivery systems, zoning laws, urban and rural infrastructures, medicalization, or even about the very definitions of illness and health.”

structural racism; embracing anti-racist, diverse, equitable, and inclusive ideology within an organization; collaborating with the academic communities for professional development opportunities and workforce diversity and inclusion; and speaking out about systemic racism and expanding their efforts into communities.

The Liaison Committee on Medical Education (LCME) accreditation Standard 7.6 provides opportunities for addressing diverse perceptions of health and illness in response to patient “symptoms, diseases, and treatments,” and recognizes the “... impact of disparities in health care on all populations and potential methods to eliminate health care disparities.”²¹ Schiff and Rieth described a longitudinal elective course in social justice at John A. Burns School of Medicine that is intended to increase medical students’ confidence in skills and attitudes towards diverse populations.²²

Metzl and Hansen describe “an evolving discourse that refines cultural competence in structural terms,” and defines structural competency as noted in Table 1.¹⁹ The authors proposed a pedagogical approach to medical education that will “foster structural competency through pre-clinical and clinical education,” and “infuse clinical training with a structural focus ... coupled with medical models for structural change.”^{19,23} According to the authors, the five core competencies of structural competency are: recognizing the structures that shape clinical interactions; developing an extra-clinical language of structure; rearticulating “cultural” presentations in structural terms; observing and imagining structural interventions; and developing structural humility.

Metzl and Hansen urged medical education to “shift its gaze from an exclusive focus on the individual encounters to the organization of institutions and policies, and neighborhoods and cities ... institutions and social conditions that produce the markers of exclusion ... health effects of wealth imbalances ...”¹⁹ In a commentary,

Hansen and Metzl assert that “health disparities require institution-level interventions for remediation,” and clinical educators need “a pedagogical approach to foster structural competency through pre-clinical and clinical education.”²³ The authors described the need to prepare medical practitioners to “address social and institutional barriers to health” by forming alliances to impart structural change, such as engaging with multiple stakeholders (eg, community organizations, non-health institutions and policymakers) to promote both community and patient health.²³ These “social and institutional barriers to health” are social determinants of health.

Neff and colleagues describe social inequalities as the “key drivers of poor health outcomes among marginalized members of society.”²⁴ The authors discussed the uneven incorporation of structural factors into medical education and proposed the use of a novel curricular approach to address the inadequacy and fill the gap, including the addition of structural competency into the medical curriculum. The authors defined structure in terms of “social and economic policies; laws regulating the distribution of health and social resources; and social stratification based on race, ethnicity, religious affiliation, immigration status, abilities, gender identity, sexual orientation ...”²⁴

Edgoose and colleagues described a train-the-trainer workshop for medical faculty on teaching racism in medical education.²⁵ The authors endorsed the need for addressing the systems and behaviors that perpetuate racism to ensure the development of “skills that facilitate dialogue, preserve safety, and address conflicts ... discussions and dialogue, forming committees and workgroups, curriculum development, and professional growth and commitment.”²⁵ The researchers conducted a needs assessment and administered pre- and post-workshop surveys to the participants, and an additional post-workshop survey at two and six months.²⁵ While the participants

expressed improved confidence in teaching racism in their respective medical institutions, they endorsed institutional challenges, including lack of flexibility in the students' schedule and time constraints in their workload for deep discussion and debriefing sessions within the anti-racism curriculum.²⁵

Nursing and Nursing Education

Racism in the profession of nursing and nursing education has been documented as far back as 1860 when nurse Florence Nightingale founded the first nursing school in London that only accepted European women, and this racism continues to exist today.²⁶ The history of structural racism in health care and nursing education shows that racism is rarely called out, named, or openly discussed.²⁷ Nursing educators have recommended four key changes for immediate implementation in the curriculum to overcome structural, individual, and ideological racism (SIIR), and to facilitate a successful, decolonized, all-inclusive nursing curriculum:²⁷ learning resources must reflect multiple ethnicities to account for differences (eg, jaundice) and similarities in assessment and diagnosis; nursing researchers should not teach students to merely "control for race" when health care disparities such as health access are pivotal in the burden of disease; "race" must be challenged as an unproblematic risk factor for disease in course material, and clearer reflection needs to show the impact of SIIR on health status; and the visibility and influence of BIPOC faculty in academia and leadership must be increased to continually counter the effects of colonialism and racism.

These recommendations focus on what, how, and by whom the curriculum is taught and can also apply to pharmacy education and other health care disciplines. The inclusion of BIPOC nursing faculty has multiple benefits. In addition to countering the overall effects of colonialism and racism, diverse faculty can facilitate decolonizing the curriculum as well. Homogeneous majority faculty and students mainly interacting only with each other can result in the sharing of similar cultural and racial experiences, reinforcing socializations, and furthering white supremacy ideologies.²⁸ Without change, white privilege can remain the invisible unchallenged norm. Anti-racism education should become the unchallenged norm.

The American Association of Colleges of Nursing (AACN) curricular standards for baccalaureate nursing education include the following related requirements and offer sample content:²⁹ discuss the implications of health care policy on issues of access, equity, affordability, and social justice in health care delivery; apply knowledge of social and cultural factors to the care of diverse populations; and

utilize clinical patients from diverse backgrounds, cultures, and of differing gender, religious, and spiritual practices.

Given these requirements, nursing courses incorporate teaching and learning about different cultures. However, Lokugamage states that learning about other cultures in the classroom will not tackle structural racism effectively. Instead, it can reinforce racialized stereotypes and biases, which must be reflected upon and discussed.³⁰ Dismantling racism in nursing education cannot be accomplished singularly or as a transient movement. It must be an ongoing requirement for every nurse.²⁷

Social Work and Social Work Education

Social work has led in terms of combatting and educating on racism and health inequities. Social work has been an effective force for social change, and BIPOC have been the primary beneficiaries. The National Association of Social Workers (NASW) Code of Ethics states, "The primary mission of the social work profession is to enhance human well-being and help meet the basic human needs of all people, with particular attention to the needs and empowerment of people who are vulnerable, oppressed, and living in poverty ... Social workers are sensitive to cultural and ethnic diversity and strive to end discrimination, oppression, poverty, and other forms of social injustice."³¹ However, in a recent call to action, the NASW was identified as a predominately White association that must commit to taking action against White privilege if the profession wants to be successful in achieving social justice for people of color.³² This same call to action recommended that the current social work curriculum be examined to determine how its practices support institutional racism, and then engage in changing those practices.³² A commitment to incorporating institutional racism-related content into the curriculum by educational leadership is also needed.³²

Tisman and Clarendon offer a thorough description of how to address racism in the social work curriculum. The authors state it is dangerous for social work education to be ahistorical without properly addressing the critical interactions of social work, race, and racism.³³ It is also dangerous for other health care curricula, including that in pharmacy education, to lack historical context and not address the intersection of health care and racism. An essential social work skill is the ability to acknowledge and respond to issues of race and racism. A syllabus for the proposed model course "Racism and Social Work" describes how the course provides students with a critical exploration of how racism and race shape social work, health, institutions, culture, and beliefs, and incorporates small-group activities, reflection, required readings, didactic lectures, team presentations, and discussions.³

DISCUSSION

A Proposed Framework for Health Equity and Anti-Racism Education in Pharmacy

The idea of curricular mapping or introducing concepts longitudinally throughout the curriculum is not new to the Academy. In understanding how structural racism impacts social determinants of health, and consequently, patient outcomes, it is vital to make the connection that the path towards understanding personal biases and how they impact decisions health care providers make about their patients is a journey. This process will require colleges and schools of pharmacy to take in-house inventories of expertise to assess what lived experiences students bring, how adept faculty are in offering their experiences and facilitating such conversations, and how the organizational structure and power dynamics aid or hinder the progress on integrating health equity and anti-racism into the curriculum. Longitudinal weaving of health equity and anti-racism education into the curriculum will ensure proper integration, deepen the dialogue, and prevent an incomplete or fragmented approach. Moving from injustice to equity is neither a small nor easy challenge. To help guide pharmacy education and the pharmacy profession towards resolution, a framework can be useful. Wherever schools and colleges of pharmacy may be on their journey towards integration of health equity and anti-racism across the curriculum, the authors offer a five-phase approach: Pharmacy Health Equity Anti-Racism Training (Rx-HEART).

Phase 1 of the Rx-HEART framework focuses on gaining awareness, and it invites PharmD programs to scan their own college or school of pharmacy to examine what perspectives and expertise are present across their faculty and staff, as well as students. As has been highlighted, representation of lived experiences that can build community across groups is important, not only for students to feel an affinity, but also for communities to feel connected with their local schools and colleges and health care systems. As such, this first phase is for the people involved in the program to become aware of the perspectives that are present and those that are missing. Furthermore, pharmacy programs that have faculty who bring a broad understanding of and expertise in anti-racism work, including structural racism, health equity, and social determinants of health, must assess whether those faculty members' efforts to grow their body of work and add to the knowledge of their students, colleagues, and the institution are being adequately supported. Often-times faculty, particularly BIPOC faculty, who engage in anti-racism work, including mentoring students, take on such projects and initiatives in addition to their regular work and expectations. By recognizing anti-racism work,

pharmacy programs can provide the support and incentives for these faculty to thrive and maintain anti-racism work as a priority and continue to contribute to the larger community of colleagues and students and to the profession.

As part of this first phase, while programs assess and raise awareness of their inventory of expertise, it is also important to bring awareness to how race data is used across the curriculum. Faculty across the curricula must assess whether race is used in the curriculum inappropriately as a biologic construct or appropriately as a social construct, and what discussions, if any, are taking place around race as a social construct within and outside the classroom. This phase of understanding what expertise already exists within the pharmacy program and gaining an awareness of how race data are used across the curriculum is vital when conducting an analysis of strengths, weaknesses, opportunities, and threats (SWOT) involved in integrating anti-racism across the curriculum (an example of a SWOT analysis is provided in Table 2).

Phase 2 of the Rx-HEART framework focuses on elective offerings within the curriculum and identifies elective lectures or courses where in-depth exploration of anti-racism and health equity topics may already exist. These offerings may include single lectures, a lecture series or seminar, extra- or co-curricular programming that is offered consistently (eg, every year), or any stand-alone didactic or experiential electives. Once an assessment or introduction of elective offerings has been conducted where faculty and students have had the opportunity to collectively engage in discussion about past successes and challenges that relate to such an offering, a program may move into Phase 3.

Phase 3 of Rx-HEART identifies opportunities where anti-racism education may be offered as part of mandatory coursework. This phase is focused on offerings where all students are exposed to the material and in a consistent manner. This may happen, for example, via required seminars, professional development days, orientation, and/or required advanced pharmacy practice experiences (APPE) modules.

Once all students across the curriculum have had some initial education or training, programs should consider using the approach in Phase 4. This phase calls for curricular integration in a consistent, longitudinal manner that allows students to be repeatedly exposed to and explore the depth of discussion related to structural racism and health equity.

Finally, Phase 5 engages students in active reflection on how students are applying and evolving their knowledge, and how they are actively working through

Table 2. Sample Strengths, Weaknesses, Opportunities and Threats Analysis of Anti-Racism Work Across the Curriculum

Strengths	Weaknesses	Opportunities	Threats
Faculty/Staff with expertise in anti-racism work	Missing representation across faculty and students	Existing courses/lectures where the use of race can be corrected (ie, as a social construct)	Perceived resistance among faculty/staff and students around anti-racism work
Faculty/Staff and students with diverse lived experiences	Lectures /courses where race is used inappropriately as a biological construct	Other disciplines located within or nearby, or affiliated with a school/ college of pharmacy that already engages in some anti-racism work/ teaching (ie, nursing, medicine, social work, etc.)	Lack of advocacy for budgetary allowance/ expansion for anti-racism education efforts
Faculty/Staff and students with lived experiences shared by the patients/ communities served by the program	Lack of leadership buy-in/ advocacy of anti-racism efforts within the program	Affiliations with community organizations, civic engagement groups where partnerships can be strengthened (ie, syringe exchange programs, safe injection sites, health equity groups, community centers focused on improving literacy efforts, local housing authorities, food banks, etc.)	Community mistrust
Any existing lectures/ courses that cover anything across the spectrum of anti-racism work (eg, social determinants of health, cultural humility, structural racism, health equity)		Identified expertise within and external to the profession (speakers, videos, conferences, etc.) that may augment strategic efforts to integrate anti-racism education in a sustainable manner	Historical precedence and events that may contribute to institutional resistance and/or meaningful community engagement

consistent interactions and experiences in the areas of health equity and anti-racism work. With repeated exposure and consistent engagement, students will be able to transition knowledge into skills that can be strengthened over time as practitioners. Such a phased approach may provide schools and colleges of pharmacy with a chance to identify and assess gaps and opportunities for truly

integrating health equity and anti-racism education sustainably across the PharmD curriculum. A visual for this approach to implementation of the proposed framework for curricular integration of health equity and anti-racism is presented in Figure 1. A summary of the Rx-HEART approach and questions and tips to guide the conversation on curricular integration are provided in Figure 2.

Figure 1. The Pharmacy Health Equity Anti-Racism Training (Rx-HEART) Framework

Phase 1: Inventory/Awareness

What perspectives do your students/faculty/staff offer?
What perspectives are missing?
Does your faculty and staff have representation that mirrors your student body?
Does your faculty and staff have representation that mirrors the patients and community you serve?
For the faculty who have expertise in this area, are they supported to maximize their impact on students, their colleagues, and/or the institution?
How is race data used across the curriculum?
Conduct a mini SWOT analysis of anti-racism work in the program.

Phase 2: Elective Offerings

Where in the curriculum is anything consistently being offered in the area of health equity and anti-racism?
This may include single lectures, series of lectures, consistent extracurricular or co-curricular programming, and standalone elective, didactic, or experiential courses.
These offerings should include those that are NOT ones that ALL students are mandated to engage with.

Phase 3: Mandatory Offerings

Where in the curriculum is there a mandatory offering in the area of health equity and anti-racism?
This may include mandatory lectures, seminars, courses, and/or activities that ALL students are mandated to engage with at some point in their curriculum.

Phase 4: Integration

How often in the curriculum are the students exposed to any activities/and lectures around health equity and anti-racism?

Phase 5: Application

How are students applying their knowledge in these areas?
How are students engaging with other perspectives/experiences to assess and fill their own gaps with consistent interactions in the areas of health equity and anti-racism?

Figure 2. Sample Questions to Guide Integration of Five-Phase Framework, Rx-HEART

CONCLUSION

Pharmacy education has made progress in understanding how factors outside of clinical care impact our patients and community health at large. Nonetheless, as recent social movements have brought heightened importance to the conversation on social injustices, including structural racism, the pharmacy profession must continue to explore ways to use this momentum to advance pharmacy education. As pharmacy students, researchers, and practitioners explore their own place in this conversation, the authors suggest that the Rx-HEART framework might provide a starting point for schools and colleges of pharmacy to integrate health equity and anti-racism education across the curriculum.

ACKNOWLEDGMENTS

The authors acknowledge Dr. McKenzie Ferguson for assisting with review and editing of the final manuscript.

REFERENCES

1. Chen AMH, Armbruster AL, Buckley B, et al. Health disparities, cultural competence, and health literacy content integration in U.S. and Canadian pharmacy curricula. *Am J Pharm Educ.* 2020;84(6):8200 doi: 10.5688/ajpe8200.
2. The Joint Commission of Pharmacy Practitioners (JCPP). Pharmacists' Patient Care Process. May 29, 2014. <https://jcpp.net/wp-content/uploads/2016/03/PatientCareProcess-with-supporting-organizations.pdf>. Accessed February 10, 2021.

3. Accreditation Council for Pharmacy Education. Accreditation standards and key elements for the professional program in pharmacy leading to the doctor of pharmacy degree ("Standards 2016"). Published February 2015. <https://www.acpe-accredit.org/pdf/Standards2016FINAL.pdf>. Accessed January 5, 2021.
4. Medina MS, Plaza CM, Stowe CD, et al. Center for the Advancement of Pharmacy Education (CAPE) 2013 Educational Outcomes. *Am J Pharm Educ.* 2013;77(8):162. doi:10.5688/ajpe778162.
5. Avant ND, Gillespie GL. Pushing for health equity through structural competency and implicit bias education: a qualitative evaluation of a racial/ethnic health disparities elective course for pharmacy learners. *Curr Pharm Teach Learn.* 2019;11(4):382-393. doi:10.1016/j.cptl.2019.01.013.
6. Hood CM, Gennuso KP, Swain GR, Catlin BB. County health rankings: relationships between determinant factors and health outcomes. *Am J Prev Med.* 2016;50(2):129-135.
7. American Association of Colleges of Pharmacy. Update: national pharmacy organizations take action against racial injustices. <https://www.aacp.org/article/update-national-pharmacy-organizations-take-action-against-racial-injustices>. Accessed February 5, 2021.
8. Chisolm-Burns M. The disease of racism. *Am J Health-Syst Pharm.* 2020;77:1537-1538. doi: 10.1093/ajhp/zxaa254.
9. Arya V, Butler LM, Leal S, et al. Systemic racism: pharmacists' role and responsibility. *J Am Pharm Assoc.* 2020;60:e43-e46. doi:10.196/j.japh.2020.09.003.
10. Hagan AM, Campbell HE, Gaither C. The racial and ethnic representation of faculty in US pharmacy schools and colleges. *Am J Pharm Educ.* 2016;80(6):44. doi:10.5688/ajpe806108.
11. White C, Conway JM, Davis PK, et al. AACP Special taskforce white paper on diversifying our investment in human capital. *Am J Pharm Educ.* 2017;81(8):S13. doi:10.5688/ajpeS13.
12. MP Associates: Center for Assessment and Policy Development, and World Trust Educational Services. Racial Equity Tools Glossary. <https://www.racialequitytools.org/>. Accessed February 5, 2021.
13. Jones CP. Confronting institutionalized racism. *Phylon.* 2002;50(1):7-22. doi:10.2307/4149999.
14. Gee GC, Ford CL. Structural racism and health inequities: old issues, new directions 1. *Du Bois Rev.* 2011; 8(1):115-132. doi:10.1017/S1742058X11000130.
15. Brandeis University. Diversity, equity, & inclusion: our social justice definitions. <https://www.brandeis.edu/diversity/resources/definitions.html>. Accessed February 6, 2021.
16. Braveman P, Arkin E, Orleans T, Proctor D, Plough A. What is health equity? and what difference does a definition make? Robert Wood Johnson Foundation Report, Princeton, NJ. <https://www.rwjf.org/en/library/research/2017/05/what-is-health-equity.html>. Accessed February 5, 2021.
17. Centers for Disease Control and Prevention. Adolescent and school health: Health disparities among youths. <https://www.cdc.gov/healthyyouth/disparities/index.htm>. Accessed February 7, 2021.
18. Healthy People 2030. Social determinants of health. <https://health.gov/healthypeople/objectives-and-data/social-determinants-health>. Accessed October 9, 2020.
19. Metzl JM, Hansen H. Structural competency: theorizing a new medical engagement with stigma and inequality. *Soc Sci Med.* 2014; 103:126-133. doi:10.1016/j.socscimed.2013.06.032.
20. Association of American Medical Colleges (AAMC). Addressing and eliminating racism at the AAMC and beyond. <https://www.aamc.org/addressing-and-eliminating-racism-aamc-and-beyond>. Accessed October 28, 2020.

21. Liaison Committee on Medical Education. Function and structure of a medical school. <https://lcme.org/publications/>. Accessed January 31, 2021.
22. Schiff T, Rieth K. Projects on medical education: “social justice in medicine” a rationale for an elective program as part of the medical education curriculum at John A. Burns School of Medicine. *Hawaii J Med Public Health*. 2012;71(4):64-67.
23. Hansen H, Metzl JM. New medicine for the U.S. health care system: training physicians for structural interventions. *Acad Med*. 2017;92(3):279-281. doi:10.1097/ACM.0000000000001542.
24. Neff J, Holmes SM, Knight KR, et al. Structural competency: curriculum for medical students, residents, and interprofessional teams on the structural factors that produce health disparities. *MedEdPORTAL*. 2020;16:10888. doi:10.15766/mep_2374-8265.10888.
25. Edgoose JYC, Brown-Speights J, White-Davis T, et al. Teaching about racism in medical education: a mixed-method analysis of a train-the-trainer faculty development workshop. *Family Medicine (FAM MED)*. 2021;53(1):23-31. doi:10.22454/FamMed.2021.408300; <http://dx.doi.org.proxy-es.researchport.umd.edu/10.22454/FamMed.2021.408300>.
26. Iheduru-Anderson, KC. The white/black hierarchy institutionalizes white supremacy in nursing and nursing leadership in the United States. *J Prof Nurs*. 2020;37(2):411-421. doi:10.1016/j.profnurs.2020.05.005.
27. Burnett A, Moorley C, Grant J, et al. Dismantling racism in education: in 2020, the year of the nurse & midwife, “it’s time.” *Nurse Educ Today*. 2020;93:104532. doi:10.1016/j.nedt.2020.104532.
28. Moncrieffe M, Asare Y, Dunford R, Youssef H. Decolonising the curriculum: teaching and learning about race equality. *University of Brighton Press*. <https://cpb-eu-w2.wpmucdn.com/blogs.brighton.ac.uk/dist/f/80/files/2019/07/Decolonising-the-curriculum-issue-1.pdf>. Accessed February 9, 2021.
29. American Association of Colleges of Nursing. The essentials of baccalaureate education for professional nursing practice (AACN, 2008). <https://www.aacnnursing.org/portals/42/publications/bacessentials08.pdf>. Accessed February 9, 2021.
30. Lokugamage A. Maternal mortality-undoing systemic biases and privileges. *BMJ (Online)*. 2019. https://blogs.bmj.com/bmj/2019/04/08/amali-lokugamage-maternal-mortality-undoing-systemic-biases-and-privileges/?fbclid=IwAR2YMI0Lbfwsrt8X2kSkZ_CqQ_bix5NElyYYiJi3cbAddfdeCARMBukZos. Accessed February 7, 2021.
31. National Association of Social Workers (NASW) Code of Ethics. 2000. <https://www.socialworkers.org/About/Ethics/Code-of-Ethics/Code-of-Ethics-English>. Accessed February 2, 2021.
32. De Silva EC, Jackson V, Oldman V, et al. Institutional racism and the social work profession: a call to action. National Association of Social Workers. 2007. <https://www.socialworkers.org/LinkClick.aspx?fileticket=SWK1aR53FAk%3D&portalid=0>. Accessed February 2, 2021.
33. Tisman A, Clarendon A. Racism and social work: a model syllabus for graduate level teaching. *J Teach Soc Work*. 2018;38(2):111-136. <https://doi.org/10.1080/08841233.2018.1442384>.