REVIEW ARTICLE

Addressing racism in respiratory therapy educational programs: An integrative literature review

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Introduction/background: The impacts of racism on the experiences of under-represented minorities in health education programs such as respiratory therapy can impede the ability of these students to succeed in these programs and in the healthcare workplace. This can exacerbate the discrepancy between the racial diversity of the healthcare workforce and that of the population that they intend to serve.

Methods: An integrative literature review was conducted to examine and integrate the published literature that describes how racism is expressed and addressed in health education programs and in healthcare workplaces.

Results: Thirty-one studies were reviewed that included a variety of allied health professions. Racial discrimination in these programs is characterized as racial stereotyping, micro-aggressions, significant cognitive and emotional burdens, socio-economic challenges, and organizational impediments. Individual coping strategies such as confronting racism directly or minimizing its existence and seeking and offering social and cultural supports are reported. At an institutional level, policies to address racism, foster an inclusive culture, and develop programs that enable and support diversity and career progression have been described.

Discussion: A conceptual model that frames the factors that enable racism (both extrinsic/societal and intrinsic/individual) against strategies that mitigate the effects of racism (both institutional and individual) is proposed and applied to respiratory therapy programming.

Conclusion: Respiratory therapy programs must acknowledge, prioritize, and address racism consistently and systemically. Targeted research is required to explore the specific experiences of this profession, and to validate the effectiveness of the strategies described to redress the inequities unmasked by racism.

Key Words: discrimination; prejudice; workplace bullying; training programs; immigrants; systemic bias

BACKGROUND

Statistics Canada projects that by 2036, almost 50% of the country's inhabitants are expected to be either first- or second-generation immigrants [1]. The healthcare workforce is not representative of this diversity, and research from the United States indicates that this discrepancy becomes even more stark in positions of healthcare leadership [2]. An under-represented minority (URM) is defined as "any recognized minority group whose representation in healthcare is disproportionately lower when compared to the group's proportion in the general population" [3] (p. 778). International research demonstrates that the under-representation of minority groups such as Indigenous Peoples in the healthcare workforce impacts the ability of the health system to provide diverse and culturally appropriate care [4] and to address race and ethnicity-based inequalities in delivering healthcare [5]. There is an urgent need to enhance the diversity of students in healthcare education to better align with the racial and ethnic distribution of the population that these eventual professionals will serve [3].

Health professional educational programs in Canada include training for careers such as nursing, medicine, and various allied health and administrative positions (e.g., respiratory therapy, physiotherapy, health information management). Prospective students must possess high levels of academic achievement and are expected to maintain their high academic performance throughout their educational program to eventually graduate to become self-regulated healthcare professionals. Self-regulated

healthcare professionals are purported to have specialized skills and competencies that must be demonstrated and maintained to ensure safe and effective practice [6–12]. Many of these professionals require successful completion of a national or provincial examination (e.g., Canadian Board for Respiratory Care exam) or evaluation process to earn a jurisdictional license to practice. The status of self-regulation implies a social contract that these professionals must commit to serve the needs of society [12, 13]. A student's journey through a health education program involves a series of steps, ranging from recruitment and admission to the program, to didactic coursework and laboratory training, to work-integrated learning (i.e., clinical practica), finally leading to graduation and entry to practice. The effects of racism and its impacts can profoundly influence a student's journey through a health education program [1-15]. Processes for assessment and evaluations, supports for graduation, employment, and career progression can also affect the overall success and longevity of professionals in these career paths. As a result of the impact of racism on a student's learning, experts suggest a systems-level approach to address problems that URMs face in health education, as racism and its resulting inequities are entrenched in all aspects of society. A single course or policy is insufficient to address such a pervasive problem [5].

Currently, there exists limited literature that addresses racism in healthcare education in general, and respiratory therapy education in particular. The purpose of this article is to identify and describe how

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racism is expressed in healthcare education and workplaces and to propose a conceptual framework to address the effects of racism in respiratory therapy programs through an integrative review of the literature. The guiding questions for this review are: (i) how is racism described in post-secondary, health professional education programs and (ii) what are the proposed strategies to mitigate the effects of racism in respiratory therapy health education programs?

METHODS

An integrative literature review methodology was used for this research, broadly based on Richard Torraco's [16, 17] and Hannah Snyder's [18] guidelines. To critically analyze and synthesize the literature, Torraco [16] called on researchers to combine the themes from the literature with their own intimate knowledge of the subject area and develop new or re-conceptualized knowledge frameworks. This can take the form of a "research agenda, a taxonomy, an alternative model or conceptual framework, and metatheory" [19] (p. 362). Integrative or critical literature review methodology aims to review different perspectives in the literature around a topic and synthesize that work into a model or conceptual framework [18]. This methodology was particularly applicable to this research topic because literature from the fields of post-secondary education (including diverse aspects such as recruitment and admissions, pedagogical approaches, academic progression, evaluations, and career supports), and literature that explores racism in healthcare workplaces needed to be integrated into a model to outline how racism could be expressed in health care education and to situate that model specifically in respiratory therapy education programs. The results of this review will generate a framework that maps how racism is expressed in healthcare education, provoke questions for future research (e.g., developing a research agenda) in this area, improve practice, and address disparities.

The literature search strategy (Table 1) for this review was developed with the help of a health sciences librarian and conducted in relevant healthcare and education online databases. Specifically, the search was conducted in Education Resources Information Centre (ERIC), Academic Search Complete, Cumulative Index for Nursing and Allied Health Literature (CINAHL) Health Source: Nursing/Academic Edition, Education Research Complete, and MEDLINE using the search terms and related synonyms of racism AND healthcare OR post-secondary education OR workplace (Table 2). I selected the most relevant articles that provided rich and deep data for this review according to inclusion and exclusion criteria (Table 3). Secondary sources of literature (i.e., grey literature) [20] such as professional and program publications were also reviewed to capture expert opinions and practices. No quality appraisal of the study was done. Key information was

TABLE 1

| Literature search strategy | | | | | | | |
|----------------------------|---|--|--|--|--|--|--|
| Databases searched | Education Resources Information Centre (ERIC), Academic Search Complete, Cumulative Index for Nursing and Allied Health Literature (CINAHL) Health Source: Nursing/Academ Edition, Education Research Complete, and MEDLINE | | | | | | |
| Search terms | health* OR hospital* OR medic* OR post-secondary AND rac* OR discriminat* OR prejudic* OR bias AND stud* OR work* (including synonyms where applicable) | | | | | | |
| Inclusion criteria | 1) Literature published in English 2) Literature published between 2001 and 2021, 3) Literature that described and/or addressed racism and ethnicity in post-secondary educational institutions or in healthcare workplaces, 4) Literature that employed any study design | | | | | | |
| Exclusion criteria | Literature that described the effects of racism on patients Literature that described workplaces that were not related to healthcare | | | | | | |

extracted from relevant literature and placed into an Excel file. Then, I used my personal experience to interpret and combine the extracted key information to create a concept matrix [17] to visually map the themes to identify the final model relevant to defining and describing racism in healthcare education. More specifically, I used an iterative process of coding and categorizing the themes and concepts from the literature, which lead to the creation of a conceptual model representing the enabling factors and mitigation strategies for racism in healthcare education. This model was then applied to my experiences both as a student in a respiratory therapy program and as an educator in another respiratory therapy program. Throughout the data collection and analysis process, I did reflexive memoing [21] to document my own assumptions and experiences related to this topic. These reflections were integrated into the final result.

RESULTS

The literature search retrieved 31 articles that satisfied the inclusion and exclusion criteria for this review. Sixteen of these were articles focused on healthcare workplaces, and 15 involved educational settings. Most studies were based in the United States, while the others were based in the United Kingdom, Canada, and Australia. The papers included a range of healthcare professionals ranging from nurses, midwives, social workers, dentists, and physicians. The most used methodologies in the papers include systematic reviews, literature reviews, descriptive studies, and one randomized controlled trial. Tables 2 and 3 provide concept matrices detailing the setting, methodology, race, profession, and geographical characteristics of each of the articles retrieved for this review. The two major themes include (i) enablers of racism and (ii) coping, support, and mitigation strategies. I expand on each below.

Enablers of racism

Racial stereotyping

Studies across health professions consistently report examples of racial stereotyping. This is described as URM professionals being mistaken for lower skilled professionals [22–27], lacking language skills [28–33], and being streamed into educational pathways or professions and positions that are considered less desirable [14, 19, 29, 24–26, 32, 34]. Stereotype threat is described in this literature [19, 29, 35] as a phenomenon where racialized persons perform worse as a consequence of their own perception that their race predisposes them to lower performance.

Micro-aggressions

Discrimination against racialized healthcare students and professionals can sometimes be overt in form of racial attacks by patients such as name calling, refusing treatment from certain minority groups, and questioning competence and qualifications [5, 22–27, 32, 33, 36–38]. Ogunyemi et al. [39] characterized micro-aggressions as frequent derogations that can be explicit or subtle, demeaning, invalidating, and psychologically harmful to minority groups. Such acts have been reported across the health professions [5, 14, 22, 23, 25–27, 32, 34, 38, 39]. Racialized nurses, physicians, and other professionals are often subject to excessive scrutiny and surveillance at work [22, 25, 26, 32, 34, 37], and experience power differentials in these settings, (e.g., between an expert practitioner and a novice learner) which can promote intimidation [5, 14, 23, 25, 26, 30, 33, 34, 37, 40].

Cognitive and emotional burden

Allan et al. [30] explored the experiences of racialized nurses in the United Kingdom and equated racism as a form on bullying, with similar consequences of internalization, loss of self-worth, and acceptance of the workplace as inherently discriminatory. Racialized healthcare students and professionals have to cope with the cognitive burden of constantly navigating and dealing with discrimination in schools and workplaces [22, 23, 26, 39], which can have a deleterious effect on self-confidence and motivation and enable experiences of humiliation [5, 19, 24–26, 29–33, 35, 39, 41].

TABLE 2
Literature review concept matrix—factors that enable racism

| | | | | | | | Ena | abling Factors | i | |
|------------------------------------|-----------|-----------------------------|--------------|------------------|----------------------|-------------|---------------|----------------|--------|-----------------------|
| | | Article | E | xtrinsic/Socie | Intrinsic/Individual | | | | | |
| Article | Setting | Methodology | Race | Profession | Country | Behavioural | Institutional | Educational | Social | Behavioural cognitive |
| Allan et al., 2009 | Workplace | Phenomenology | Black, Asiar | Nurse | UK | Х | Х | | Х | |
| Mapedzahama et al., 2012 | Workplace | Narrative inquiry | Black | Nurse | Australia | Χ | X | | | X |
| Nunez-Smith et al., 2007 | Workplace | Grounded theory | Black | Physician | USA | Χ | X | | | X |
| Nunez-Smith et al., 2009 | Workplace | Predictive correlational | Multiple | Physician | USA | Х | | | | |
| Kawi & Xu, 2009 | Workplace | Literature Review | Multiple | Nurse | Multiple | | X | | X | X |
| Hagey et al., 2001 | Workplace | Narrative inquiry | Multiple | Nurse | Canada | X | X | | | |
| Nunez-Smith et al., 2008 | Workplace | Phenomenology | Black | Physician | USA | Х | Х | | Х | |
| Rasmussen & Garran, 2016 | Workplace | Commentary | Multiple | Social Worker | USA and Canada | Х | Х | | | |
| Nichols & Campbell, 2010 | Workplace | Literature Review | Mutiple | Nurse | UK | Х | Х | | Χ | Х |
| Wingfield & Chavez, 2020 | Workplace | Ethnography | Black | Multiple | USA | Х | Х | | Χ | Х |
| Snyder & Schwartz, 2019 | Workplace | Literature Review | Multiple | Multiple | USA | Х | Х | | Χ | X |
| Moyce et al., 2016 | Workplace | Systematic Review | Multiple | Nurse | Multiple | X | X | X | X | X |
| Truitt & Snyder, 2020 | Workplace | Phenomenology | Black | Nurse | USA | X | X | X | Χ | |
| Beach et al., 2005 | Workplace | Systematic Review | Multiple | Multiple | USA | | | | | |
| Fowler, 2020 | Workplace | Phenomenology | Multiple | Nurse | USA | X | X | | X | X |
| Kellesarian, 2018 | Workplace | Literature Review | Multiple | Dentist | USA | | | X | X | X |
| Milne et al., 2015 | Education | Systematic Review | Indigenous | Mutliple | Multiple | | | | X | |
| Crisp et al., 2015 | Education | Systematic Review | Latin | Multiple | USA | X | X | X | X | X |
| Isik et al., 2018 | Education | Systematic Review | Multiple | Mutliple | Multiple | X | X | X | X | X |
| Ogunyemi et al., 2019 | Education | Systematic Review | Multiple | Multiple | USA | X | X | | X | X |
| Perdomo et al., 2019 | Education | Mixed methods | Multiple | Physician | USA | | | | | |
| Sharma & Kuper, 2017 | Education | Commentary | Multiple | Physician | Canada | X | | | | |
| Acosta & Ackerman- Barger, 2017 | Education | Commentary | Multiple | Multiple | USA | Х | Х | | | |
| Iheduru-Anderson & Wahi, 2021 | Education | Literature Review | Multiple | Nurse | Multiple | Х | X | | Х | |
| Bush, 2020 | Education | Phenomenology | Multiple | Pharmacist | USA | | | X | X | X |
| Curtis et al., 2012 | Education | Literature Review | Indigenous | Multiple | Multiple | | | X | | X |
| Taylor et al., 2019 | Education | Systematic Review | Indigenous | Multiple | Australia | | | X | X | X |
| Effland et al., 2020 | Education | Phenomenology | Multiple | Midwife | USA | X | | | | X |
| Yeates et al., 2017 | Education | Randomized controlled trial | Asian | Physician | UK | X | | | | Х |
| Bajwa et al., 2018 | Education | Phenomenology | Multiple | Multiple | Canada | | | X | X | X |
| Simone et al., 2018 | Education | Systematic Review | Multiple | Multiple | Canada | | | | | |

Socio-economic factors

URM students disproportionately live in communities that are financially constrained [19, 28, 29, 41] and have access to fewer supports and resources (e.g., academic supports and counseling) in their school system [19]. This can lead to lower performance in high school and difficulty gaining admission to health professional programs that typically require high academic achievement [4, 19]. Parental education levels, as well as their support and commitment have significant impacts on the educational attainment of these students [4, 19, 28, 29].

Racialized minorities, especially early generation immigrants, may be older when entering school or the workforce [13, 28], and may have domestic responsibilities such as caring for families and added financial burdens and commitments [13, 19, 27, 28, 41] that can negatively impact their ability to access education or participate fully in the workforce. A sense of displacement from their native culture and discord with the dominant culture that leads to social exclusion has been described [13–15, 19, 23–26, 28–33, 39, 42]. Social supports to deal with these challenges have been found to be lacking and inconsistent [25, 26, 28, 30–33, 41, 43].

Organizational factors

Organizational processes described in the literature that enable racism include a lack of meaningful orientation to the work setting and culture [24, 31], differential treatment for advancement and promotions [14, 23, 25–27, 30–34, 42], and inadequate support from leadership [14, 22–27, 31–34, 38, 39, 42]. A lack of cultural competency among faculty and leadership at educational institutions [15, 41] exacerbates this problem.

Coping, support and mitigation strategies

Individual coping

To cope with the effects of racism, some healthcare students and professionals minimize or deny its existence [15, 22, 23, 26, 27, 32, 42], while others directly challenge racism and discrimination [23, 26, 31, 32, 34, 39]. Hard work and persistence in navigating this landscape and actively highlighting one's strengths and positive attributes have been described as methods used to counteract racial stereotypes [5, 15, 22, 26, 31].

TABLE 3
Literature review concept matrix—factors that mitigate racism

| | | | | | | | Mitigati | ng Factors | |
|--|-----------|-----------------------------|--------------|---------------|-------------------|--------------------|-----------------|-------------------|--------------------------|
| | | Institutional Strategies | | | | | | | |
| Article | Setting | Methodology | Race | Profession | Country | Policy initiatives | Formal training | Informal supports | Individual Strategies |
| Allan et al., 2009 | Workplace | Phenomenology | Black, Asian | Nurse | UK | | | | |
| Mapedzahama et al., 2012 | Workplace | Narrative inquiry | Black | Nurse | Australia | | | | |
| Nunez-Smith et al., 2007 | Workplace | Grounded theory | Black | Physician | USA | | | | |
| Nunez-Smith et al., 2009 | Workplace | Predictive correlational | Multiple | Physician | USA | X | | | |
| Kawi & Xu, 2009 | Workplace | Literature Review | Multiple | Nurse | Multiple | X | X | | X |
| Hagey et al., 2001 | Workplace | Narrative inquiry | Multiple | Nurse | Canada | X | Χ | | X |
| Nunez-Smith et al., 2008 | Workplace | Phenomenology | Black | Physician | USA | | Χ | X | X |
| Rasmussen & Garran, 2016 | Workplace | Commentary | Multiple | Social Worker | USA and Canada | | | | |
| Nichols & Campbell, 2010 | Workplace | Literature Review | Multiple | Nurse | UK | X | X | | |
| Wingfield & Chavez, 2020 | Workplace | Ethnography | Black | Multiple | USA | | | | |
| Snyder & Schwartz, 2019 | Workplace | Literature Review | Multiple | Multiple | USA | | | | X |
| Moyce et al., 2016 | Workplace | Systematic Review | Multiple | Nurse | Multiple | | X | | X |
| Truitt & Snyder, 2020 | Workplace | Phenomenology | Black | Nurse | USA | X | X | Χ | X |
| Beach et al., 2005 | Workplace | Systematic Review | Multiple | Multiple | USA | X | X | , | |
| Fowler, 2020 | Workplace | Phenomenology | Multiple | Nurse | USA | X | ^ | | X |
| Kellesarian, 2018 | Workplace | Literature Review | Multiple | Dentist | USA | X | X | | X |
| Milne et al., 2015 | Education | Systematic Review | Indigenous | Multiple | Multiple | X | X | Χ | X |
| Crisp et al., 2015 | Education | Systematic Review | Latin | Multiple | USA | X | X | X | X |
| Isik et al., 2018 | Education | Systematic Review | Multiple | Multiple | Multiple | ^ | ^ | X | X |
| Ogunyemi et al., 2019 | Education | Systematic Review | Multiple | Multiple | USA | | X | X | X |
| Perdomo et al., 2019 | Education | Mixed methods | Multiple | Physician | USA | | X | X | ~ |
| Sharma & Kuper, 2017 | Education | Commentary | Multiple | Physician | Canada | | X | X | |
| Acosta & Ackerman- | Education | Commentary | Multiple | Multiple | USA | | X | X | |
| Barger, 2017 Iheduru-Anderson & Wahi, 2021 | Education | Literature Review | Multiple | Nurse | Multiple | X | X | | |
| Bush, 2020 | Education | Phenomenology | Multiple | Pharmacist | USA | | | Χ | Х |
| Curtis et al., 2012 | Education | Literature Review | Indigenous | Multiple | Multiple | X | X | X | X |
| Taylor et al., 2019 | Education | Systematic Review | Indigenous | Multiple | Australia | X | X | X | X |
| Effland et al., 2020 | Education | Phenomenology | Multiple | Midwife | USA | × | X | X | X |
| Yeates et al., 2017 | Education | Randomized controlled trial | Asian | Physician | UK | ^ | ^ | ^ | ^ |
| Bajwa et al., 2018 | Education | Phenomenology | Multiple | Multiple | Canada | | X | | Х |
| Simone et al., 2018 | Education | Systematic Review | Multiple | Multiple | Canada | X | X | | X |

URM students and professionals have actively sought out family and social supports [4, 15, 19, 26–29, 31, 32, 34, 39, 41–43] and engaged positively with peers from dominant cultures [5, 15]. Many found that helping others who are discriminated against fosters a sense of motivation and confidence [3, 13, 15, 26, 28, 29, 30, 33, 37, 39, 41, 42]. Pursuing specific training in the areas of language, communication, and assertiveness [28, 31] as well as training for advanced skills and credentials [13, 15, 27, 28, 33] were strategies described in the literature that individuals have adopted.

$Organizational\ supports$

Stable financial commitments are reported to be among the most important supports to address organizational racism [3–5, 14, 41]. Educational institutions and healthcare organizations have responded by providing formal onboarding, mentorship, and training programs [3–5, 13, 14, 24, 27, 28, 31, 32, 34, 36, 39, 41, 42, 44, 45] and support with admissions, licensing and registration requirements especially for students or employees from other jurisdictions [3, 4, 13, 14, 24, 28, 31, 32, 34]. Incorporating flexible programming and schedules [3, 14, 27, 41] have enabled students and professionals to participate more fully in these programs.

Mission statements and organizational policies that value diversity and inclusion [4, 5, 27, 37], formal avenues to document and remediate acts of racism [34, 37], and measuring institutional performance in these domains [4, 14, 45] have been reported to be valuable. Healthcare

organizations have also worked to actively recruit and promote racially diverse employees [3, 5, 13, 24, 32, 34, 37] to enrich their workforce and make the diversity of their staff more reflective of the population that they serve.

DISCUSSION

The identified themes derived from this integrated review provide a model to conceptualize the factors that enable the expression of racism in healthcare educational programs and strategies to mitigate this issue. This conceptualization is presented in Figure 1.

Implications for respiratory therapy

When applying this model to respiratory therapy programming, it is helpful to examine the educational pathway that ultimately leads to a diverse workforce. This includes diversifying the pipeline of students entering post-secondary healthcare education programs, academic and social supports for URM students within the program, and supports to graduate, enter, and advance in the workforce.

Respiratory therapy program entry

There is evidence that students from certain races (e.g., Latinx) have lower representation in post-secondary education at higher levels [20]. High school and post-secondary students from URM groups should be provided mentorship opportunities and exposed to respiratory therapy role models (e.g., through job shadowing) who reflect the diversity in

FIGURE 1 Conceptual model demonstrating the factors that enable the expression of racism in healthcare education, and mitigation Extrinsic/Societal Institutional Behavioural **Policy Initiatives** · Mission statement and policies · Racial stereotyping · Performance measurements and · Micro-aggressions targets · Power relationships · Financial commitment · Documenting and addressing Insitutional racism · Lack of orientation · Targeting diversity in recruiting · Professional undervaluation and promotions · Differential treatment for advancement Formal supports · Streaming into less desirable Enabling Factors · Orientation and onboarding Mitigating Strategies pathways support · Lack of leadership support · Diversity training · Flexible programming Educational · Clinical skills validation and · Financial constraints bridging · Resource limitations · Culture specific supports · Parental support · Mentorship programs · Institutional cultural incompetency Informal supports Intrinsic/Individual · Nurturing safe spaces for dialogue about racism Socio-economic · Acknowledging and valuing · Cultural and social displacement multiracial cutures and exclusion · Peer and mentor support · Lack of social support · Faculty support · Financial constraints · Domestic and age related responsibilities Individual · Resiliance to racism Cognitive/behavioural · Highlighting strengths and · Having to constantly cope with attributes · Family, peer and social supports · Humiliation, low self confidence · Helping others and motivation · Pursuing training · Accent and language

their communities. Academic supports and upgrading and help with navigating admissions and credentialing can help reduce barriers for students with international credentials to enter the program. Financial supports such as targeted student loans (which some new immigrants may otherwise be ineligible for), scholarships, and financial counseling can help reduce systemic inequities faced by these students. Bridging programs [4, 28] can help students address academic gaps and, for those who have related prior learning, enable advanced entry in the program thereby reducing the required financial and time commitments. Flexible programming such as part-time, online, and blended learning options can help bring the program within reach of URM students who have other financial and domestic commitments.

Respiratory therapy program progression

An institutional culture that values diversity and nurtures ongoing supportive conversations about racism should be fostered in respiratory therapy programs. Program faculty and staff should be provided training in diversity and cultural competence to effectively support diversity in

the student population. Institutional policies, course material, codes of conduct, and methods of redress should be designed to intentionally negate the effects of implicit bias and systemic racism. Capturing performance metrics (e.g., attrition rates and time to program completion) can help assess progress. Designing multiple exit points from the program (e.g., earning a certificate after 2 years of a 3-year respiratory therapy diploma program) can help validate learning and allow opportunity for continuation at a more feasible point in time [41]. Culture-specific supports [4] such as Indigenous resource groups, as well as representative peer and faculty mentors, can help provide socio-culturally sensitive support to these students.

Respiratory therapy career support

Policies that enhance the diversity of candidates being recruited into healthcare workplaces and well-supported pathways for advancement are needed for diversity from the education pipeline to be sustained into the workforce [3, 5]. Robust onboarding and mentoring programs that are culturally sensitive can be helpful in preparing racially diverse respiratory

therapists for the healthcare workplace. Diversity training for healthcare staff and management, combined with enforceable policies against racism and discrimination, can help develop an inclusive and representative workforce. Policies and positions statements that support equity, diversity, and inclusion are being increasingly incorporated into position statements, standards of practice, and codes of ethics of respiratory therapy professional associations and regulators [46, 47].

Limitations

This integrative literature review has some limitations that can impact the transferability of the findings. None of the articles reviewed studied the experiences of respiratory therapists specifically but addressed a range of other health professions. Only five of the 31 studies reviewed addressed the Canadian healthcare context. Applying the experiences of one racialized profession or geographic location to another can be problematic because of differences in practices, roles, and cultures. Underrepresented minorities are not a homogenous group [3], so the circumstances, experiences, challenges, and effective strategies for one racial or ethnic group may be quite different from another. There is also a dearth of studies that empirically validate the effectiveness of the strategies described in the literature, so we must moderate the strength of the recommendations.

Reflexivity and ethical considerations

Gall et al. [20] described the concept of reflexivity as a process of critically examining the researcher's own context and positionality and how it influences the social reality that the researcher constructs in their work. My own background as an immigrant to Canada in 2002 and, consequently, my experiences as the only URM student in the respiratory therapy program in a college in northern Ontario influence how I perceive racism and its expression in healthcare education. While this may provide unique and rich insights into the challenges and opportunities faced by URM students, my own biases and positionality in this context may implicitly influence the specific literature that I review and the connections and conclusions that I infer.

In my personal experience teaching in a respiratory therapy educational program, I have witnessed a disproportionate number of students from ethnic minority backgrounds struggle to succeed in the program. This has potentially negative implications of graduating fewer healthcare students from ethnically diverse backgrounds, thereby decreasing the diversity of the healthcare workforce.

This research may result in findings or recommendations that can potentially have a significant impact on the program that I teach. The real or perceived impact on my career at my institution and beyond may also influence how I approach this work and its dissemination.

The initial drafts of this paper were reviewed by my peers and my supervisors in the Werklund School of Education at the University of Calgary to manage and mitigate these potential biases. The codes and thematic conceptualization developed from the literature review was deliberated with peer educators. Alternate and critical perspectives of the review were solicited from these reviewers to refine the interpretations further and strengthen the arguments.

CONCLUSIONS

Educational institutions and healthcare workplaces should acknowledge, prioritize, and address racism consistently and systemically and devote adequate finances and resources to address the inequities raised. This integrative literature review provides a conceptual model of the enablers and mitigators of racism in healthcare education and workplaces, and it applies that model to respiratory therapy programs. It calls for the implementation and evaluation of strategies at the organizational and system levels and at the individual level to address both the systemic and deeply personal effects of racism. Further research specific to the racism experiences of the respiratory therapy profession and studies to validate the effectiveness of the strategies outlined are needed to help inform a tailored approach to address the inequities faced by these health professionals.

DISCLOSURES

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Competing interests

All authors have completed the ICMJE uniform disclosure form at http://www.icmje.org/disclosure-of-interest/ and declare: no financial relationships with any organizations that might have an interest in the submitted work in the previous 3 years; no other relationships or activities that could appear to have influenced the submitted work.

Ethical Board Approval

Research Ethics Board approval was not required for this literature review because it did not involve human research participants.

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