A LIGHT IN THE FLAME: PERCEIVED BURNOUT AMONG

UNDERREPRESENTED MINORITY PHYSICIAN ASSISTANT EDUCATORS

IN THE UNITED STATES

A DISSERTATION

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DEDICATION

This dissertation is dedicated to my only living grandparent, Gloria Marilyn Jackson Sturges. You have always believed in me and spoke truth to power by always calling me your "little professor." Though Alzheimer's disease has stolen your memories, your love for me and my love for you remain unforgettable. Grandmother: "I love you a bushel and a peck and a hug around the neck AND I DO!"

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#BlackLivesMatter

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ABSTRACT

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There is a keen interest surrounding burnout in academic medicine with an

existing need for more studies (Dandar et al., 2019). The priority population for this study

were underrepresented minority (URM) physician assistant (PA) educators in the United

States. The purpose was to determine external and internal contributors leading to

perceived burnout as well as to investigate if primary and secondary appraisal inform

burnout coping strategies. The study sought to determine if there was an existing

relationship between demographic factors (gender, age, self-identified race, faculty role,

and "years in faculty position") and emotional exhaustion (EE). This study employed a

mixed-methods research design using a convenience sample representative of URM PA

educators from across the United States ($n = 101$). For the quantitative portion of the

study, the participants completed a demographics survey and the Maslach Burnout

Inventory – Educators Survey from which their average EE score was calculated. For the

qualitative portion of the study, 11 participants were interviewed to identify burnout

perception, burnout contributors, and burnout coping strategies. Descriptive statistics

were used to determine the relationship between demographic variables and EE. Qualitative data were analyzed using thematic analysis.

Data analysis revealed a statistically significant relationship between gender and EE. This relationship demonstrated that women URM PA educators experience burnout at increased rates compared to men URM PA educators. There were no statistically significant relationships between age ($r = .015$, $R^2 = .000225$, $p = .883$), self-identified race ($F(1, 98) = .108$, $p = .744$, $\eta^2 = .001$), faculty role ($F(1, 97) = 3.09$, $p = .082$, $\eta^2 = .031$), and "years in faculty position" and EE ($F(1, 99) = .271$, $p = .604$, $\eta^2 = .003$). The overall predictive model of the demographic variables and EE score were not statistically significant ($F(5, 92) = 1.859$, $p = .109$, $R2 = .092$, adjusted $R2 = 0.042$). The qualitative data offered insight into burnout perception, contributors, coping strategies, current institutional and programmatic burnout strategies, suggested institutional and programmatic burnout strategies, common occupational stressors, initial responses to occupational stressors, and overall experiences of URM PA educators.

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INTRODUCTION

Rationale

The year 2020 was one of social awakening and subsequent action to address the

long-ignored needs of underrepresented and vulnerable populations in the United States.

The United States is exponentially diversifying with each passing year. Diversity leads to

ever-changing demographics associated with medical patient populations (Jones, 2007).

Along with this diversification of patient populations, health professions education

should also reflect diversity in matriculants and faculty (Sturges, 2018) to include

underrepresented minority (URM) physician assistant (PA) educators. URM educators

can serve as role models for student populations and create a learning environment

conducive to a sense of inclusion, belonging, and decreased marginalization among URM

students (LeLacheur et al., 2015). Though a noble calling that can exact positive change

by affording URM educators an opportunity to provide education and mentorship to

URM students, many report decreased satisfaction, stagnation regarding promotion, and

few remain in their faculty roles (Alexander & Sturges, 2019; Pololi et al., 2010). Why

are URM educators leaving their faculty roles?

There is a relationship between job dissatisfaction and URM classification.

Minority status may also intensify the significant association between the lack of social

support and community belonging in education (Alexander & Sturges, 2019; LeLacheur

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et al., 2019). Reported career satisfaction for URM faculty is often skewed toward the lower end of the spectrum, usually adversely informed by aggregation of institutional and organizational factors including isolation, traditional values of which they do not fit, cultural elitism, and discrimination (Alexander & Sturges, 2019). Isolation and diminished numbers of URM faculty in PA education may serve as a contributor to burnout, which is composed of three subscales: EE, depersonalization, and personal accomplishment (Maslach & Jackson, 1981). According to the Physician Assistant Education Association (PAEA; 2020a), URMs represented 8.0% ($n = 76$) of 946 total faculty, 11.4% ($n = 24$) of 209 total program directors, and 14.5% ($n = 11$) of 78 total medical directors, which results in a total professional representation of 9.0% ($n = 111$) out of 1,233 PA faculty nationwide. This percentage had decreased from the last PAEA (2018) Faculty & Directors Report, which showed 13.2% URM PA faculty ($n = 140$) out of 1,061 total PA faculty. When assessing burnout among all PA faculty, PAEA (2020a) found that 86.3% of respondents reported some aspect of feeling burnout from work, along with 91.5% of program directors and 54.2% of medical directors. However, URM status was not explicitly explored.

The issue of burnout has been labeled as acute, and there is a need for more studies regarding the topic (Dandar et al., 2019). This statement described academic faculty as a whole. According to data from the American Association of Medical Colleges, 35% of URM women self-reported "burning out" or "being burned out," while 21% of URM men reported the same. Regarding stress, 43% of URM women and 44% of URM men reported being "under stress" (Dandar et al., 2019). These numbers, coupled

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with the representation disparity of URM PA educators, confirmed a need for further evaluation by the health promotion and health education profession. There is an existing gap regarding the development and implementation of interventions addressing, reducing, and preventing burnout in academic health institutions. This study sought to address this gap in the field, with a focus on a specific target population, URM PA educators in the United States.

Statement of the Purpose

This dissertation employed both qualitative and quantitative research methodology to inform a health education intervention addressing burnout prevention in U.S. URM PA educators. The purpose of this dissertation was to determine the external and internal contributing factors that may lead to perceived burnout in the target population. This study investigated if primary appraisal and secondary appraisal informed coping strategies for perceived burnout in U.S. URM PA educators. The dissertation also sought to determine a relationship between the burnout subscale, emotional exhaustion, and the following demographic variables associated with the study participants: age, gender, self-identified race, faculty role, and "years in faculty position." The results of this study are useful in order to adequately recognize and pre-emptively address burnout among U.S. URM PA educators to increase health status, longevity in their roles, productivity, job satisfaction, and professional success.

Research Questions and Hypotheses

The guiding research questions of this study were:

Research Question 1: How do demographic factors (age, gender, self-identified race, faculty role, and "years in faculty position") relate to U.S. URM PA educators' Maslach Burnout Inventory (MBI) subscale score for emotional exhaustion?

Hypothesis 1: There is no relationship between demographic factors (age, gender, self-identified race, faculty role, and "years in faculty position") and their Maslach Burnout Inventory (MBI) subscale score for emotional exhaustion.

Research Question 2: How do demographic factors (age, gender, self-identified race, faculty role, and "years in faculty position") predict emotional exhaustion in U.S. URM PA educators?

Hypothesis 2: Demographic factors (age, gender, self-identified race, faculty role, and "years in faculty position") do not predict emotional exhaustion in U.S. URM PA educators.

Research Question 3: How do underrepresented minority (URM) physician assistant (PA) educators in the United States perceive burnout?

    a. What, if anything, do URM PA educators in the United States describe as contributing aspects to burnout?

    b. What burnout coping strategies, if any, do URM PA educators in the United States employ?

Delimitations

The delimitations of this study were as follows:

1. Study participants represented PA educators employed at developing or accredited PA programs located in the United States.

2. Study participants self-identified as a URM as defined by the PAEA.

Limitations

The limitations of this study were as follows:

1. The MBI-Educators Survey (MBI-ES) represented only one aspect of most of the study participants' occupation as a PA educator while not assessing associated clinical duties.

2. The study participants had varying full-time equivalent statuses, which may have altered the MBI-ES subscale scores leading to under and/or overrepresentation on the burnout spectrum.

3. This study used a convenience sample and snowball sampling method, which may have introduced selection bias.

4. The MBI-ES was delivered and completed via an electronic method with no options for in-person, telecommunication, or mail-in delivery or completion.

5. Despite the faculty role demographic, the study did not factor in cross-curricular, clinical duties, and citizenship (institutional and external) attached to the U.S. URM PA educators' job responsibilities.

6. The study participants' institutions varied by type: public, private, liberal arts, and/or academic health center.

7. The researcher's position as the current chair of the Diversity and Inclusion Mission Advancement Commission for the PAEA may have introduced bias in the participants' responses.

Assumptions

The assumptions for this study were as follows:

1. Study participants could read, write, and comprehend the English language.

2. Study participants completed the MBI-ES honestly and to the best of their abilities.

3. Study participants honestly answered semistructured interview questions to the best of their abilities.

4. Sound research practices were employed in the conducting of this study.

5. All study participants were U.S. URM PA educators.

Definition of Terms

Burnout. A syndrome characterized by emotional exhaustion, depersonalization, and low personal accomplishment occurring in individuals involved in occupations with a primary focus on "people work" (Maslach & Jackson, 1981; Maslach et al., 2018).

Coping. "Processes [brought] into play to manage the troubled person–environment relationship [influencing] the person's subsequent appraisal and hence the kind and intensity of the stress reaction" (Lazarus, 1990, p. 3).

Coping efforts. "Actual strategies used to mediate primary and secondary appraisals" (Wethington et al., 2015, p. 227).

Depersonalization. "Educators who no longer have positive feelings about their students" (Maslach et al., 2018, p. 31).

Emotional exhaustion. "The tired and fatigued feeling that develops as emotional energies are drained" (Maslach et al., 2018, p. 31).

Maslach Burnout Inventory – Educators Survey. A reliable, valid tool geared toward educators that measures three burnout scales: emotional exhaustion, depersonalization, and personal accomplishment (Maslach et al., 2018).

Personal accomplishment. "Feelings of competence and successful achievement in one's work with students" (Maslach et al., 2018, p. 31).

Physician assistant. "Medical professionals who diagnose illness, develop and manage treatment plans, prescribe medications, and often serve as a patient's principal healthcare provider" (AAPA, 2020).

Physician Assistant Education Association. "The only national organization representing PA educational programs" (PAEA, 2020b).

Primary appraisal. "A person's judgment about the significance of an event as stressful, positive, controllable, challenging, benign, and/or irrelevant" (Wethington et al., 2015, p. 226).

Secondary appraisal. "An assessment of coping resources and options in a situation" (Wethington et al., 2015, p. 228).

Underrepresented minority. "Identified as Hispanic, a single non-White race, or a non-White race in combination with White race" (PAEA, 2020a, p. 5).

Importance of the Study

To the author's knowledge, this was the first study focusing on burnout in URM PA educators. As of the writing of this dissertation, there were 260 accredited PA programs, with 47 applicant programs in the pipeline (Accreditation Review Commission on Education for the Physician Assistant [ARC-PA], 2020). With the continuous creation of new programs and the hiring of new faculty, there was a need for health promotion interventions for PA educators as the educational realm evolved. This study focused on URM PA educators and can help PAEA member programs in achieving their accreditation requirements, most specifically Standards A1.11 and B2.20. ARC-PA (2019) Standard A1.11 states that "The sponsoring institution must demonstrate its commitment to student, faculty and staff diversity and inclusion" (p. 8). The data collected and results of this study allow programs to lead by example as Standard B2.20 states that "The curriculum must include instruction about provider personal wellness including prevention of: (a) impairment and (b) burnout" (ARC-PA, 2019, p. 16). This study also addressed the recognizable presence of burnout in PA education and the current gap surrounding available health promotion interventions through the lens of URM status.

CHAPTER II

LITERATURE REVIEW

Search Strategy and Emerging Themes

Many themes emerged (see Figure 1) when reviewing the literature related to

burnout and URM educators in higher education. Sample search terms included *burnout*,

burnout in physician assistants, *burnout AND physician assistants*, *burnout AND*

underrepresented minorities, *burnout interventions*, *burnout AND educators*, *burnout*

AND physician assistant education, *stress AND coping*, *physician assistant education*,

and *diversity AND higher education AND faculty*. The following databases were used for

the literature search: Ovid Full Text, CINAHL Complete, PubMed, Academic Search

Complete: EBSCO, Medline, and EBSCO Health Source Nursing Academic Edition. Due

to the robust nature of the topic, the years searched were 2000 to present. In addition,

seminal articles regarding burnout research were used from the late 1970s and early

1980s.

Figure 1

Visual Representation of Literature Review

Underrepresented Minority Faculty Experiences and Associated Challenges	• Historical Perspective • URM PA Educator Racial Demographics • Benefits • Barriers • Retention Issues
Burnout	• Definition • Contributors to Job Burnout • Burnout in Clinical Providers • Burnout in Medical Education
Burnout in Educators	• General • Academic Medicine • URM Populations in Educational Settings
Burnout, Stress, & Coping	• General • Health Impact
Review of Select Burnout Interventions	• Individual Level • Organizational Level • Desired Outcomes • Best Practices

This review of the literature (see Figure 1) explored common themes reflecting the experiences and associated challenges of URM faculty in higher education. It also defined and explored burnout syndrome. After providing background information on burnout, the syndrome was discussed through the lens of educators in primary, secondary, and higher education; and then further expounded upon in its occurrence in URM educators. The associated health impacts of burnout and their relation to stress and coping were presented. Finally, a thematic review of existing burnout interventions

informed possible best practices that can be leveraged in the creation of burnout

prevention health education interventions targeting URM PA educators.

Introduction

Existing evidence purports that bolstering diverse representation among students,

educators, and leaders in academic medicine results in beneficial impacts on the U.S.

health system and associated health outcomes (Nivet, 2010; Rodriguez et al., 2014). The

addition of diversity adds value in the educational setting. There are often purposeful

efforts to increase diversity, but there is little effort regarding developing and

implementing inclusive practices. Traditionally, clinician educators are expected to

produce and make significant contributions in the realms of teaching, clinical practice,

and research (Nivet, 2010). URM offer a valuable, diverse qualitative perspective

regarding research and instruction while also providing increased support to URM

learners by offering academic advice, mentorship opportunities, and serving as role

models. PA educators existing within academic health centers or traditional universities

are expected to satisfy specific criteria for promotion. In addition to satisfying the

promotion criteria, URM educators often intrinsically feel a duty to sit on demanding

committees, offer mentorship to students with nonacademic issues, and participate in

community service initiatives that institutions do not value for promotion and tenure

purposes (Cohen, 1998). These added responsibilities and subsequent duties can lead

URM educators to fall victim to the minority tax or "Black tax" (Cohen, 1998; Sturges,

2018; Wyatt et al., 2020) and may subsequently serve as contributors to developing and

experiencing burnout.

There is an existing relationship involving job satisfaction and URM status associated with a lack of social support and community inclusion (LeLacheur et al., 2019). Most researchers regarding PA educators have studied patterns of publishing, associated benefits, job satisfaction, and burnout. Findings suggest PA educators are satisfied with their current positions and have comparable levels of burnout when compared to other higher education faculty (Beltyukova & Graham, 2017; Coniglio & Akroyd, 2015). There is a glaring gap in the current research regarding URM PA educators and burnout that should be addressed. Filling this gap is important due to recent calls highlighting the disparity in the numbers of non-White PA educators. PA programs are encouraged to prioritize recruitment of URM PA educators in order to reflect the patient populations served by the U.S. healthcare workforce (Coniglio & Akroyd, 2015). With this recruitment, there is a need for strategic retention efforts and interventions to help support and sustain positive health outcomes in URM PA educators, with an emphasis on burnout.

URM Faculty Experiences and Associated Challenges

URM faculty in medical education and higher education may share similar experiences, both positive and negative. It is prudent to understand these unique experiences in order to recognize, examine, and address thematic contributors that lead to and/or reduce burnout in the target population. There has been intentional encouragement to bolster enrollment numbers of URM students in medical institutions; however, the same cannot be said for increasing representation of URM faculty in academic health centers (Pololi et al., 2010). This lack of commitment leads to adverse outcomes among

those URM educators already employed by these institutions, which can manifest as social and professional isolation, high turnover, and discrimination (Alexander & Sturges, 2019; Pololi et al., 2010). Approaching from a positivist viewpoint, URM educators elevate the university's research agenda, enhance curriculum design, and offer a well-informed perspective regarding cultural topics in medicine (Daley et al., 2006).

Historical Perspective

Origins

The PA profession was created in the late 1960s secondary to a national shortage of primary care providers (Hooker & Kuilman, 2011; LeLacheur et al., 2015). The need was most acute in underserved areas. This new type of medical provider would lead to increased access to care and better health outcomes within the specific service areas (LeLacheur et al., 2015). From this need, many PA programs began to open their doors, with Duke University in Durham, North Carolina, and the University of Washington-MEDEX Northwest in Seattle, Washington serving as original pioneers in PA education (Carter, 2001). There was a push for URM excellence in the beginning, though racial minority representation was nonexistent among the faculty besides Dr. Richard Smith, the Black man who founded the University of Washington–MEDEX Northwest PA program. Early successes included the PA prototype being based on a Black man named Henry Lee "Buddy" Treadwell and his on-the-job medical training, working relationship, and clinical duties with physician colleague Dr. Amos N. Johnson (LeLacheur et al., 2015). More accomplishments included the graduation of the first Black PA, Prentiss Harrison, in 1968 and the first Black woman PA, Joyce Nichols, in 1971. There was the

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establishment of PA training programs at two minority-serving institutions (Charles R.

Drew University in Los Angeles, California and Harlem Hospital in New York City, New

York) and one HBCU (Howard University in Washington, DC). Apart from these initial

exemplars in URM representation and excellence in the beginning phase of PA

education, growth among this population has stagnated with diminished numbers

representative of racial and ethnic diversity (LeLacheur et al., 2015).

PA Programs

With the need for an alternative type of medical provider, PA programs began to

develop and have formalized over the last 50 years. Based on the latest data, the length of

PA programs is a median duration of 27 months. Most of the students enrolled who

reported gender are female (70.8%), while males represent 28.9% of matriculants

(PAEA, 2019). Student racial demographics were as follows: 0.5% American Indian or

Alaskan Native, 9.3% Asian, 3.8% Black or African American, 2.3% multiracial, 0.8%

Native Hawaiian or Pacific Islander, 71.8% White, 3.6% other, and 7.8% unknown

(PAEA, 2019). According to Jones (2007), URM representation in medicine "continues

to fall short of reflecting the national distribution of minorities and their representation

among PAs is also inadequate and falls below that of allopathic physicians. This

discrepancy must be addressed given the increasing diversity of the population" (p. 886).

PA education was created to offer an abbreviated alternative to attaining medical

education through the traditional model of medical school. The goal of PA education is to

develop nonphysician providers to increase access to health services otherwise provided

by physicians (Cawley, 2007; Legler et al., 2007). PA programs are located in varying

types of educational institutions, such as "medical schools, universities, four year colleges, community colleges, teaching hospitals, the uniformed services, and federal healthcare systems" (Legler et al., 2007, p. e23). The training of PAs is deeply rooted in primary care with the hope that most graduates will enter the primary care field to help fulfill the increasing national need for more primary care providers (Cawley, 2007).

The ARC-PA is the accrediting body for all U.S. PA programs. At the time of writing this literature review, there were 260 accredited programs, with 47 applicant programs awaiting initial accreditation site visits (ARC-PA, 2019). The ARC-PA creates and evaluates standards by which all PA programs must comply. The curriculum is usually divided between didactic/preclinical (classroom) and clinical (experiential) education (Jones, 2007). The ARC-PA standards purport that the didactic and clinical phases of the PA program must include clinical experiences under the direct supervision of preceptors, topics on interpersonal and communication skills, and instruction covering patient care assessment and patient management (Jones, 2007). The preclinical year includes but is not limited to instruction in clinical medicine topics covering all organ systems across the human lifespan. There is also instruction in evidence-based medicine, data gathering, and clinical reasoning (ARC-PA, 2019). The clinical curriculum must include experiences in family medicine, emergency medicine, internal medicine, surgery, pediatric medicine, women's health, and behavioral health.

Competency-based education serves as the cornerstone for the current iteration of the PA educational model and has been affirmed by the ARC-PA (Cawley, 2007; Jones & Houchins, 2017). Competency-based PA education is rooted in establishing,

practicing, and demonstrating proficiency in identified clinical skills, which leads to achieving competency in primary care. This type of educational foundation allows students to gain the necessary experience and skills to practice in the current national health system based on competencies. At the culmination of fulfilling all requirements in PA education, the student is awarded a master's degree, the PA terminal degree. Using their competency-based education, graduates sit for the national certifying examination and submit for state licensure to practice medicine as a PA (Cawley, 2007).

URM PA Educator Racial Demographics

The most current PA educator demographics were included in the 2019 PAEA "Faculty and Directors Report 4." Regarding racial composition representative of 946 PA faculty in non-upper leadership roles, there were 0.2% ($n = 2$) American Indian or Alaskan Native; 2.1 % ($n = 20$) Asian; 3.1% ($n = 29$) Black or African American; 2% ($n = 19$) multiracial; 0.2% ($n = 2$) Native Hawaiian or other Pacific Islander; and 0.4% ($n = 4$) other. Examining upper leadership roles, the demographics of the program director were 0% American Indian or Alaskan Native; 1.4% ($n = 3$) Asian; 5.3% ($n = 11$) Black or African American; 2.9% ($n = 6$) multiracial; 0% Native Hawaiian or other Pacific Islander; and 1.9% ($n = 4$) other of 209 total respondents. URM status among medical directors ($n = 78$) was reflected as follows: 0% American Indian or Alaskan Native; 5.1% ($n = 4$) Asian; 5.1% ($n = 4$) Black or African American; 1.3% ($n = 1$) multiracial; 0% Native Hawaiian or other Pacific Islander; and 2.6% ($n = 2$) other (PAEA, 2020a). These demographics display a disparity in URM representation in both faculty and upper leadership positions within PA education.

The current study is warranted in order to attain a more informed view of URM PA educator perspectives regarding job experience and job satisfaction, as both can affect the development and exacerbation of burnout (Awa et al., 2010; Bartram et al., 2012; Bruce, 2009; Dandar et al., 2019; Grandey et al., 2012; Maslach et al., 2001; Maslach & Leiter, 2008). With the existing predominance of White or European Americans in PA education, data gathering and subsequent analyses are centered in Whiteness. Therefore, data may not be reflective of the URM experience in PA education. PAEA (2020a) gauged "Perceptions of fairness in the PA program" (p. 36) on a 4-point Likert scale (1 = *strongly disagree* to 4 = *strongly agree*). Of the 13 statements measured, three directly addressed diversity issues regarding URM status (PAEA, 2020a). The statement "This program has effective hiring practices and policies that increase faculty diversity" (PAEA, 2020a, p. 36) had a median of 3.0 for faculty and program director respondents, while medical directors reflected a median of 4.0. When asked to respond to "Faculty are not prepared to deal with conflict over diversity issues in the classroom" (PAEA, 2020a, p. 36), faculty, program directors, and medical directors reported a median of 2.0. Regarding if "Faculty of color are treated fairly in my program" (PAEA, 2020a, p. 36), a median of 4.0 is reported among faculty, program directors, and medical directors. Based on the overrepresentation of one population and the underrepresentation of the others, these findings should be re-examined through a critical lens. There was measurement of these three perceptions surrounding increasing diversity and associated issues without any mention of retention strategies or implementation of inclusive practices. This gap in

research further propagates the sometimes-negative experiences in which URM PA educators exist in PA education and higher education as a whole.

Benefits

The available literature was limited regarding the associated benefits and contributions of URM educators in academic medicine and higher education. Both the health promotion/education and higher education fields are ripe for new research and innovations specific to this population and topic. URM educators and their rich diversity allow for role modeling opportunities for students. The presence of URM educators also forges an inclusive educational environment that inculcates a sense of belonging and lessens feelings of marginalization among URM learners (Alexander & Sturges, 2019; Daley et al., 2006; LeLacheur et al., 2015; Price et al., 2009).

In academic medicine (e.g., PA education), URM educators provide diversity of thought by allowing increased interactions among health professions students and colleagues with others from varied backgrounds and cultures. Underrepresented minority educators are also active contributors to the university's research agenda with novel studies involving bench research, translational research, clinical studies, and/or health interventions focusing on health disparities while also serving in advisory roles and as professional exemplars (Daley et al., 2006; Sturges, 2018). There is also the practice of community engagement. For example, a group of Black physicians detailed racial uplift as an influential component of community outreach, in which they established a presence in their own communities to help elevate the underrepresented and underserved peoples from oppressive systems and circumstances (Wyatt et al., 2020). In essence, these

clinicians and clinical educators are creating and supporting a pipeline for URMs. According to Daley et al. (2006), URM educators are influential contributors to curriculum design; educate students regarding important societal issues; promote the needs of culturally and ethnically diverse patient populations among learners and educators; increase awareness related to culture and health beliefs; and make sustainable connections in underserved communities. URM educators contribute "added-value" to their respective institutions of higher learning.

Barriers

Inequitable institutional practices coupled with systemic oppression can manifest as barriers for URM educators in both academic medicine and higher education. These practices are felt most by those "placed into 'minority' status by systemic inequalities, oppression, and marginalization. These systems sustain the overrepresentation and dominance of historically privileged social identities" (Sotto-Santiago et al., 2019, p. 84). In higher education, Black race and Hispanic ethnicity are underrepresented related to census data (White et al., 2020). As recently as 2013, it was found that historically marginalized faculty represented 13% of the academe. However, in academic medicine, the percentage shrank to approximately 11%. Black and Latina/o/x educators constituted below 6% of the existing 11% (Sotto-Santiago et al., 2019). Barriers affecting URM educators are usually born of the traditional institutional policies, procedures, and practices that are non-inclusive, inequitable, and at times, racist. Though these institutional policies are believed to be generalizable to all, they simply are not and are often developed, viewed, and implemented through a lens of Euro-centricity and Western

cultural dominance (Nivet et al., 2008; Sotto-Santiago et al., 2019; Wyatt et al., 2020). These practices can be disadvantageous for URM educators in that they suppress the real and shared experiences of minority populations while further exacerbating professional and societal subjugation and limitations (Wyatt et al., 2020). Thus, the barriers experienced by URM educators are based in a historical context that must be addressed and dismantled in order to help ensure success; and limit possible adverse health outcomes and occupational stress, such as burnout.

There is a shared experience associated with educators in higher education/academic medicine and underrepresented status. Again, this is an area of research where there is a glaring gap in studies addressing the barriers associated with URM educators. These shared experiences manifest in multiple barriers to success (e.g., covert and overt racism, social and professional isolation, and discriminatory practices; Nivet et al., 2008; Pololi et al., 2010; Sotto-Santiago et al., 2019; Zambrana et al., 2015). There is also a pervasive feeling of tokenism among this population. The perception of tokenism is rooted in institutions' decreased enthusiasm and genuineness displayed by leadership regarding URM-led efforts. There is also an increased burden and associated fatigue, both intrinsic and extrinsic, to be included only to have one's presence relegated to them representing their race as a voice for the collective. Also, in this same vein, URM educators are constantly legitimizing that their accomplishments are based on merit rather than as a result of being the recipient of specific programs [a]e.g., affirmative action; Pololi et al., 2010).

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Academic Medicine

Regarding academic medicine, the above barriers further complicate the promotion and tenure journey for URM educators, which is usually already tenuous at best (Wyatt et al., 2020). The development, recruitment, and upward mobility of URM educators in academic medicine are dampened by these unchecked barriers, which usually leads to decreased retention in this population in order to escape the incapacitating and upsetting environment (Nivet et al., 2008), possibly resulting in burnout symptoms. According to Nivet et al. (2008), the following are barriers experienced by URM educators in academic medicine: "Ethnic and racial bias and discrimination, isolation and lack of networking, insufficient time and energy for activities that further promotion, financial need, [and] lack of mentoring and understanding of requirements for faculty success" (pp. 494–495).

Bias and Discrimination. The result is an increased perception of ethnic and/or racial bias experienced by URM educators in academic medicine. These perceptions and, at times, experiences backed by evidence lead to decreased job satisfaction scores among this population. Low satisfaction scores are not routinely observed in non-URM educators, even with comparable financial compensation (Nivet et al., 2008). Due to the often inescapable devaluing of their efforts and qualifications from the majority in the form that their accomplishments result from affirmative action, many URM educators feel highly scrutinized and experience immense, consistent pressure, which may lead to occupational stress.

Social and Professional Network Isolation. There are existing minority-serving and HBCU academic medical centers employing majority URM educators and providing care to URM communities and patient populations. However, due to the prevalence of non-minority-serving or non-HBCU academic medical centers, URM educators find themselves employed in institutions where the majority of their patients and colleagues are White (Nivet et al., 2008). Due to their decreased numbers in this type of environment, their chances of creating personal and professional relationships with the majority population diminishes. These networking-type relationships are important as there is an allocation of social capital to be gained that positively influences their career trajectories, professional development, and the garnering of recognition. Isolation leads URM educators to experience loneliness, thus decreasing their job satisfaction (Nivet et al., 2008).

Time Constraints and Energy Expenditures Regarding Promotion Activities. URM educators usually struggle with time management concerning scholarly activities (e.g., research, publications, and lecturing) that lead to promotion and tenure (Nivet et al., 2008). Regardless of institution type, URM educator's full-time equivalent statuses are often depleted by clinical practice, community service activities, and advising/mentoring URM students regarding nonacademic issues and personal problems, which is done even though the URM educator usually has no formal training in mentorship and/or has no experience being a mentee. Employment at a minority-serving institution does not serve as a protective factor regarding this particular barrier. In fact, URM educators may experience more occupational demands and diminished support at these institutions.

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These findings can be attributed to minority-serving institutions having smaller faculties and decreased resources, which leads to added burdens of citizenship (serving on committees), teaching activities, and clinical practice. Research production can sometimes be limited as well due to a lack of institutional support regarding data, available biostatisticians, and technical writers (Nivet et al., 2008).

Inaccessibility to Mentorship and Sponsorship. The shortage of mentorship opportunities is not ubiquitous to URM educators, but the effect is disproportionate. There has been a historical weakness regarding URM faculty development in which junior URM educators lack mentorship and sponsorship opportunities (Nivet et al., 2008). This leaves the junior URM educators to figure out the academic ladder on their own, which can lead to a false understanding of the components needed to succeed in their academic roles and beyond. When mentoring is present, there is still a risk that the relationship does not address the structural barriers impeding successful careers for URM educators (Nivet et al., 2008).

URM PA Educator-Associated Barriers

Minority status in PA education is associated with decreased feelings of support (Coniglio & Akroyd, 2015; LeLacheur et al., 2019). A qualitative study by LeLacheur et al. (2019) further identified barriers specific to URM PA educators to include "Resistance (to diversity efforts), Bias (implicit and explicit), Lack of mentoring, Isolation, Excess responsibility (for diversity efforts), Lack of administrative support, Lack of professional guidance, Microaggressions, [and] Lip service (duplicity)" (p. 82).

Sense of Isolation and Increased Responsibility

There is a prevalent feeling of institutional and programmatic isolation, which is further compounded by a sense of duty to advocate for diversity and inclusion efforts. URM PA educators felt it an intrinsic duty to stay even though they experienced these barriers in order to be a representative for opportunities for other URMs (LeLacheur et al., 2019). Workload imbalances also occurred when compared to their White counterparts to include committee work and advising URM students and applicants. These added duties usually do not garner programmatic or institutional support for their promotion and tenure (LeLacheur et al., 2019).

Pushback Regarding Diversity Issues

Scholarly activities surrounding diversity and inclusion are usually undervalued when compared to other promotion activities, such as teaching and conducting research. This undervaluing of diversity and inclusion activities sometimes slows the advancement up the academic ladder for URM PA educators. For the URM educators who have advanced into leadership positions, they experience institutional racism through increased perceived pushback regarding their decision-making (LeLacheur et al., 2019).

Hypocrisy

Some institutions and PA programs are duplicitous regarding diversity as there is a mismatch between programmatic vision, goals, and mission and their subsequent actions. Diversity and inclusion are not prioritized in student admissions nor hiring practices. There is also the use of racialized stereotypes that are entrenched throughout

the curriculum, which URM educators take upon themselves to dismantle (LeLacheur et al., 2019).

Biases and Microaggressions

URM PA educators report experiencing bias, microaggressions, and overt racism at the individual and institutional levels. These educators carry a sense of having to prove their existence and their medical acumen to both students and fellow non-URM educators. Bias is often observed in faculty review comments, the questioning of qualifications, and the devaluing of cultural humility (LeLacheur et al., 2019).

Retention Issues

In general, PA educators leave their faculty roles due to lack of organizational support, conflicting roles and responsibilities, and secondary to age (Beltyukova & Graham, 2017; Coniglio & Akroyd, 2015). Worklife perception is also a contributing factor leading to decreased retention in PA education. Demographic variables such as age, gender expression, and ethnicity also lead to turnover (Coniglio & Akroyd, 2015). It has been found that for URM faculty in academic medicine, issues regarding upward career mobility, accolades, and appreciation are key influencing factors for intent to leave. A sense of community is a positive buffering factor for retaining PA educators by reducing isolation within their institutions and programs (Beltyukova & Graham, 2017). Lack of community and feelings of isolation are two of the barriers expressed in the URM PA educator population (Alexander & Sturges, 2019; Nivet et al., 2008; Pololi et al., 2010; Sotto-Santiago et al., 2019; Zambrana et al., 2015).

To increase retention in academic medical settings, there should be information available for employees to garner a clear understanding of the promotion and tenure procedures. To increase retention, official career coaching and intentional faculty development should be prioritized; formalized mentoring programs be implemented; as well as creating formal monitoring programs measuring faculty performance and progress (Daley et al., 2006; Sotto-Santiago et al., 2019). Studies demonstrated that prevalent challenges in retaining URM medical educators were subpar mentorship opportunities, confusing promotion and tenure criteria, a disconnect from institutional culture, diversity issues with no associated inclusive practices, and racism (Rodriguez et al., 2014). In URM educator populations, the "minority tax" or "Black tax" can serve as a contributor to retention (Cohen, 1998; Daley et al., 2006; Sturges, 2018). Another added retention barrier in URM educators is perceived racial/ethnic bias, which leads to lower career satisfaction and feelings of isolation (Alexander & Sturges, 2019; Nivet, 2010). According to Nivet (2010), "Visible dimensions of race/ethnicity, gender, and foreign-born status often provoke bias and result in cumulative advantages and disadvantages in the workplace that have an impact on faculty recruitment, promotion, and retention" (p. 56S).

Burnout

Burnout is not an official medical condition; however, it has been classified as an occupational phenomenon and is included in the International Classification of Diseases (ICD-11)–11th Revision (World Health Organization [WHO], 2020). Burnout is a syndrome exacerbated by chronic occupational stress (Schaufeli et al., 2001; WHO,

2020). Burnout should be described within the context of one's occupation and should

not be used to represent the lived experience in other aspects of daily life (WHO, 2020).

Burnout differs from acute stress in that those affected have experienced persistent levels

of stress (Awa et al., 2010). According to Bruce (2009), an existing relationship between

mental health and job satisfaction is supported by a 500-particiapnt study meta-analysis.

Individuals experiencing decreased job satisfaction were more prone to experiencing

depression, anxiety, and low self-esteem. Most research about burnout has focused on

those involved in "people-work" (e.g., social services, the nursing profession, physicians,

and educators; Zolnierczyk-Zreda, 2005). How does the intersection of two or more

professions (e.g., clinician educators) affect the perception of burnout? In medicine,

studies have mainly focused on physicians and medical students despite the presence of

various types of healthcare providers delivering patient care in the United States (Johnson

et al., 2020). Therefore, the current study sought to explore burnout in PA educators from

URM backgrounds.

Definition

Seminal research on burnout began during the mid-1970s to the 1980s primarily

in North American countries, the United States and Canada (Maslach & Leiter, 2008).

Maslach and Jackson (1981) are leading researchers on burnout and developed the MBI,

which measures burnout in individuals. Both use the following as the operational

definition:

Burnout is a syndrome of emotional exhaustion and cynicism that occurs

frequently among individuals who do 'people-work' of some kind. A key aspect

of the burnout syndrome is increased feelings of emotional exhaustion. As their

emotional resources are depleted, workers feel they are no longer able to give of

themselves at a psychological level. Another aspect is the development of

negative, cynical attitudes and feelings about one's clients. Such negative

reactions to clients may be linked to the experience of emotional exhaustion, i.e.

these two aspects of burnout appear to be somewhat related . . . A third aspect of

the burnout syndrome is the tendency to evaluate oneself negatively, particularly

with regard to one's work with clients. Workers feel unhappy about themselves

and dissatisfied with their accomplishments on the job. (p. 99)

Secondary to prolonged interpersonal occupational stress, those affected lose

concern for co-workers and also lose the ability to develop coping strategies to

purposefully deal with the emotional stressors (Maslach, 1978; Maslach et al., 2001).

Though burnout is measured on an individual level, it is an organizational issue. When

organizations are unwilling or unable to recognize, assess, and address the human aspect

of their workers, they place their employees at increased liability for developing burnout

(Leiter & Maslach, 2005). Burnout then manifests as decreased morale, job

dissatisfaction, decreased retention, increased turnover, absenteeism, diminished job

performance, and mistrust regarding the organization (Maslach, 1978; Maslach et al.,

2001).

Contributors to Job Burnout

There are many risk factors or contributors that may lead to job burnout. When

discussing burnout syndrome, it is important to recognize the root causes in order to

address them in future interventions. Institutional culture should be prioritized and considered among leadership, as a workplace culture that is non-conducive to employee well-being adversely affects occupational stress levels (Dandar et al., 2019). According to Awa et al. (2010), the most prevalent contributors to burnout development are mismatches between job duties and job skills, loss of control regarding job demands, reward disparity, and continuous occupational stress. Emotional labor is also a substantial contributor to job burnout. Bartram et al. (2012) described emotional labor as the efforts put forth by the employee in order to regulate emotional expression to fit into the expected norms of the employers or customers. Based on the affected individual, this practice leads to varying levels of stress secondary to the prevalence, severity, type, and extent of the outward or inward expression of emotion and associated dissonance between emotions felt versus the emotions expected (Bartram et al., 2012).

Increased market competitiveness and fast-moving work environments may lead to burnout. The ease of accessibility to the employer is also a contributor (e.g., email and text messages), which may lead to a sense of urgency to respond and accomplish tasks. When failing to subscribe to these practices, employees may fear the perception from employers that they lack motivation (Bruce, 2009). In essence, work overload leads to burnout response. Prolonged workload and time constraints are acute and consistent contributors to EE. Role ambiguity (conflicting job demands) and role conflict (not possessing enough information to successfully accomplish job duties) are also active contributors to burnout. Research utilizing qualitative data regarding job responsibilities

showed a moderate to high correlation relating role conflict and role ambiguity and burnout (Maslach et al., 2001).

Burnout can also be influenced by mistreatment from superiors, customers, patients et cetera, which results in EE (Grandey et al., 2012). A lack of social support has been linked to burnout. Lack of information and control are also adverse contributors (e.g., receiving minimal feedback and being unable to participate in decision-making; Gómez-Gascón et al., 2013; Maslach et al., 2001). Lack of reward (e.g., financial or social) increases susceptibility to experiencing burnout. This leads to the perception of devaluing of the employee's contribution and may exacerbate feelings of inadequacy (Gómez-Gascón et al., 2013; Maslach et al., 2001; Maslach & Leiter, 2008). Sense of community serves as a positive buffer for mitigating inequitable feelings. Therefore, lack of community along with social support leads to disengagement. Positive, supportive work environments result in less burnout among employees (Maslach et al., 2001; Maslach & Leiter, 2008). Equitable and fair practices and processes lead to an increased feeling of support and lessen the propensity for developing burnout. The absence of equity and fairness in the workplace exacerbates burnout symptomatology. The absence of shared values and/or value conflicts results in personal desired workplace goals being traded off for the organization's goals, which results in disengagement. Lastly, fit is important to occupational engagement (Maslach et al., 2001; Maslach & Leiter, 2008). Cognitive appraisal of perceived stressors plays an important role in the perception of job and person incongruity (Maslach & Leiter, 2008). It is proposed "that the greater the perceived incongruity, or mismatch, between the person and the job, the greater the

likelihood of burnout; conversely, the greater the perceived congruity, the greater the likelihood of engagement with work" (Maslach & Leiter, 2008, p. 501).

Burnout in Clinical Providers

Burnout in health care is pervasive and is reported differently based on demographics and profession. A survey conducted from 2017 – 2018 demonstrated elevated levels of burnout among U.S. physicians. Of the respondents, White physicians were more apt to report burnout symptoms than URM physicians (Bird, 2020). Though there is inadequate understanding of the variation concerning physician groups, it is interesting that there is less burnout reported in URMs who actually experience exclusionary and discriminatory practices. Bird (2020) believed that stigma informed the underrepresented reporting of burnout among marginalized populations. This research study assessed burnout through the lens of URM status in medicine.

Clinicians are a part of a caring profession in which most of the attention is focused on the social and medical needs of patients, which results in overlapping boundaries between self-care and caring for others. If self-care is perpetually neglected, burnout is the usual result (Bruce, 2009). Suppression of emotional responses leads to "surface acting." For example, when experiencing mistreatment from patients or being the brunt of an angry outburst, clinicians usually suppress their feelings and/or offer false emotional expressions. These actions compound over time and contribute to the development of burnout (Grandey et al., 2012). Considering clinicians of all types, health providers are consistently exposed to long-term stress and associated risk factors, which increases the likelihood of experiencing burnout. Existing literature affirmed high rates of

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burnout occurrence among physicians, nurses, dentists, pharmacists, and PAs (Essary et al., 2018; Tetzlaff et al., 2020). Special consideration should be examined concerning burnout during the COVID-19 pandemic secondary to increased workload and the possibility of job loss (Tetzlaff et al., 2020). The prevalence of burnout is seen in emergency medicine and family medicine at more disparate rates than other medical specialties, with both reporting burnout greater than 60%. Female physicians report more increased burnout rates than do their male counterparts. Regarding PAs, those practicing in oncology, emergency medicine, and critical care exhibit serious burnout (Coplan et al., 2018).

An extensive literature review published by Hoff et al. (2019) stated that advanced practice providers (e.g., nurse practitioners and PAs) may perceive decreased internal motivation regarding their jobs, exhibit frustration secondary to feelings of disempowerment, and report reduced job satisfaction and elevated burnout symptoms. Regarding PAs, little is known about burnout in this population compared to their physician counterparts. A 2018 national salary report reported that 32.6% of PA respondents had burnout symptoms (Dyrbye et al., 2020). The MBI–Health Services survey was used by Dyrbye et al. (2020) as a part of a 2016 – 2017 national study measuring burnout and job satisfaction among PAs. The results indicated that 40% of clinically practicing PAs reported burnout symptoms. The researchers adjusted for hours worked weekly and the findings suggested that PAs were more apt to exhibit burnout symptoms compared to other workers in the United States (Dyrbye et al., 2020). Aligning with gender findings in physicians, female PAs are more probable to communicate

burnout symptoms compared to male counterparts. Further research is needed regarding URM PAs due to their usual responsibility of shouldering workplace diversity and inclusion initiatives leading to increased levels of burnout (AAPA Task Force on PA Burnout, 2020).

Burnout in Medical Education

Like their future colleagues, health professions students also experience burnout. Burnout is common in medical school. In health professions student populations, unchecked burnout leads to subpar academic performance coupled with mental and physical manifestations (Johnson et al., 2020). Existing literature posited that approximately 50% of medical students may exhibit burnout during their matriculation, which may lead to substance abuse, suicidal thoughts, depressive symptoms, and decreased quality of life. These burnout experiences may follow them into their professional lives and may manifest as increased mental ailments and consideration of suicide (IsHak et al., 2013). URM medical students experienced components of burnout more than their nonminority colleagues, more prevalent in the low sense of personal accomplishment subscale. Quality of life scores were also decreased in URM populations (Dyrbye et al., 2006). URM physician assistant students also reported increased burnout symptoms. Johnson et al. (2020) measured the EE and cynicism subscales of burnout in a single cohort of PA students. This study found that Black Americans reported the highest levels of EE and both Black Americans and Hispanic/Latina/o/x students related increased levels of cynicism. Burnout in PA students has been understudied compared to medical students, and the research regarding URM status is limited (Johnson et al., 2020).

To adequately address burnout in health professions students, interventions promoting mentoring opportunities, self-care, wellness, and the discussion of assessing, addressing, and preventing burnout is prudent.

Burnout in Educators

General

People employed in human services-based occupations are at the greatest risk for experiencing occupational burnout (Grayson & Alvarez, 2008). Teaching is characterized as a human services profession and has been identified as a profession with high levels of exhaustion (Maslach et al., 2001). According to the existing research, approximately 5 to 20% of teachers reported burnout (Parker et al., 2012). As such, it is important to recognize and understand the original and interceding contributors leading to burnout in teachers. This identification of causal and mediating factors has led to the development of appropriate burnout interventions (Grayson & Alvarez, 2008). Due to the nature of the teaching profession, where emotional regulation is commonplace, understanding mechanisms that promote and/or hinder well-being is paramount (Parker et al., 2012). According to Maslach et al. (2001):

> New research has focused explicitly on emotion-work variables (e.g., requirements to display or suppress emotions on the job, requirement to be emotionally empathetic) and has found that these emotion factors . . . account for additional variance in burnout scores. (p. 408)

In conjunction with the aforementioned contributor, other common stressors in the teacher population include decreased student motivation, disciplinary issues, time and

workload constraints, role conflicts, flawed colleague interactions, inadequate working conditions, and poor colleague support (Margaret et al., 2018).

Academic Medicine

Medicine and education are demanding occupations that can lead to burnout (Bruce, 2009; IsHak et al., 2013). Factors at the individual and organizational levels can serve as contributors to the development of burnout among this population. On the individual level, clinician educators' primary focus is on others' needs and not their own, which results in decreased self-care. Eventually, self-care becomes obsolete, resulting in burnout (Bruce, 2009). Personality is also a contributor to burnout as most people who enter "caring" professions possess "type A" personalities having high expectations for self, valuing punctuality, navigating situations in a hurried nature, and possessing an external locus of control (Bruce, 2009). At the organizational level, technology keeps employees constantly connected to their work. Many employees fear that they may be seen as lacking motivation or indifferent if they do not subscribe to working hours outside of the designated workday or on weekends, especially if their colleagues and bosses do the same. Other organizational contributors ensue secondary to a decrease in control the faculty member once had of their own schedule, while job, student, and patient demands continuously increase (Bruce, 2009).

Academic medicine provides unique work situations that can lead to increased stress. For example, fulfilling the associated tenets of the institutional mission where one is employed has been shown to be a contributor to job-related stress. There is also "the wearing of multiple hats," where academic medicine educators perform the core duties of

multiple roles, including teacher, administrator, health care provider, and medical researcher. Stress is again magnified secondary to competition for external research funding (Dandar et al., 2019). This compounding of stress leads to burnout. According to a recent study conducted by the American Association of Medical Colleges measuring self-reported burnout in all types of medical school faculty, 28% enjoyed work, 43% reported being "under stress," 19% reported feeling "burned out," and 10% reported being "burned out" (Dandar et al., 2019). There is a correlation between burnout and workplace engagement in medical schools, demonstrating decreased levels of job satisfaction as levels of self-reported burnout increased (Dandar et al., 2019).

PA educators are also experiencing burnout and occupational stress, sharing many of the same contributors as their medical school colleagues. Forty-four percent of PA educators have contemplated leaving academia to return back to clinical practice, and approximately 58% indicated that they would choose academia if given the choice (Essary et al., 2018). While some PA educators have allotted clinical time as a part of their full-time equivalent status, others do not, which can be a contributor to burnout as they have to find time for these activities if they so desire. Those who do not have dedicated clinical time represent approximately 14% of PA educators and mainly work in family medicine and emergency medicine (Essary et al., 2018).

PA program development is growing at a rapid pace, which sets forth the pressing need for more and more PA educators. One of the limiting factors is that many are new to academia and lack the qualifications of an experienced educator (Hegmann, 2020). Most enter the field with no past experience of conducting research or producing scholarly

works for publication. A study by Hegmann (2020) reflected that approximately 50% of all PA educators reported activities related to scholarship (research and publication) as a major source of occupational stress, while approximately 54% reported stress secondary to the academic promotion process. Lack of faculty development offerings and confusion and inequitable practices surrounding the promotion and tenure process served as predictors for PA educators leaving academia (Hegmann, 2020). During the 2016–2017 academic year, 53% of all PA programs reported attrition of one or more faculty members (Essary et al., 2018). Organizational support addressing the above stressors has been found to be a positive buffer for retention, less occupational stress, and job satisfaction in PA educators (Hegmann, 2020).

URM Populations in Educational Settings

In conjunction with the emphasis on URM PA educators, there is also a need for focused interventions among student populations. When burnout is not addressed or assessed, the affected individual experiences adverse effects on work performance, mental well-being, and biological health (Johnson et al., 2020). A recent study conducted by Johnson et al. (2020) examined the emotional exhaustion and cynicism subscale of burnout among student representatives from eight PA programs in Virginia. The researchers measured burnout, quality of life, and interest in participation in a student-focused burnout health intervention. Within their findings, they highlighted that African-American and Hispanic/Latina/o/x students reported higher levels of emotional exhaustion and cynicism compared to other student racial populations. The students also indicated the importance of addressing burnout and stress reduction in this population.

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Dyrbye et al. (2006) assessed burnout, depression, and quality of life among minority and nonminority medical students in Minnesota. This study found that minority medical students expressed lower levels of personal accomplishment (a subscale of burnout). The associated analyses also supported quality of life disparities in the minority medical student population. More research should focus on the contributors, including racial/ethnic/gender bias, being the recipient of discriminatory practices and behaviors, and stereotype threat that leads to depressive states, isolation, and burnout in URM student populations (Price et al., 2009).

Dandar et al. (2019) demonstrated that burnout is pervasive in academic medicine among medical school faculty with increased representation among URM men and women compared to their non-URM counterparts. Similar to URM student populations, URM educators in academic medicine have reported being the recipients of harassment, multilevel bias, and discriminatory practices by their academic colleagues, which is related to diminished levels of career satisfaction when compared to their White counterparts. In addition, disparities in promotion and tenure have been reported in URM academic populations (Price et al., 2009). The AAPA Task Force on PA Burnout (2020) has expressed the need for a more in-depth analysis of different sub-populations of PAs and the relationship to occupational well-being. A prevailing burnout contributor in URM educators and clinically practicing PAs is that they usually bear the weight of diversity, equity, and inclusion duties within their programs. These duties may lead to expanded job demand and can increase the propensity for developing burnout. There is a lack of diversity in the PA profession, with most research regarding burnout not being

generalizable to URM populations. The limited existing research supported that URM

populations (e.g., African American, Native American, and Hispanic/Latina/o/x PAs)

reported decreased satisfaction with the profession (Essary et al., 2018). There is a need

for more research that focuses on URM PA populations and the topics of burnout and job

satisfaction, which will lead to a more robust representation of the entire workforce.

Burnout, Stress, and Coping

General

The processes of stress and coping are informed by appraisal of the perceived

threat (Lazarus, 1990). Prolonged stress and being ill-equipped to employ proper coping

mechanisms are contributors to burnout (Awa et al., 2010). Comparable to burnout:

> . . . the sources of stress . . . are apt to recur frequently [and] the distress and
>
> dysfunction produced by these sources do not end when the encounter has ended,
>
> yet the person continues to struggle to master the unresolved and recurring
>
> problems. (Lazarus, 1990, p. 9)

These compounding maladaptive behaviors can then lead to adverse health outcomes.

Lazarus (1990) offered that the feelings of harm associated with stress intertwine with

self-reported mental and bodily dysfunction.

Stress

The perception of stress involves the affected person and their surrounding

environment (Lazarus, 1990). Stress occurs when that perception surpasses the mental,

social, or tangible resources available to begin the coping process (Wethington et al.,

2015). Stress is a continual process involving stimuli inputs and outputs, the associated

processes of appraisal, and eventual coping (Lazarus, 1990). How one reacts to stressors affects the uptake and/or inhibition of health behavior change (Wethington et al., 2015). When stress input is received, the affected person activates cognitive appraisal of the situation. Primary appraisal involves the assessment of the importance of the stressor and assigning it as stressful, benign-positive, or irrelevant (Lazarus & Folkman, 1984; Wethington et al., 2015). Benign-positive appraisals usually result in positive feelings and a sense of happiness. In essence, it maintains well-being. Stress appraisals lead to perceptions of threat, harm, or loss. When this appraisal occurs, there has been an element of damage that has already taken place, which leads to a decrease in self-esteem or social esteem. Irrelevant appraisals are deemed as not affecting well-being in a positive nor negative way. Therefore, nothing is added or subtracted in the stress transaction (Lazarus & Folkman, 1984). Regarding secondary appraisal, the affected individual evaluates available options and resources in order to exert control over the given situation (Margaret et al., 2018; Wethington et al., 2015). The process of secondary appraisal is multifaceted, involving the assessment of the available coping options, the odds that the coping option will accomplish its intended goal, and if it can be effectively applied to the given stressful situation (Lazarus & Folkman, 1984; Margaret et al., 2018). Primary and secondary appraisal merge and inform the intensity of the stressor and the capacity of the associated emotional response (Lazarus & Folkman, 1984).

Coping

Coping is lauded as being one of the most sophisticated and healthy advances in adaptation. It is a dynamic process that adapts to the specific situations in which it exists

(Lazarus, 1993). Coping is a process consisting of "cognitive and behavioral efforts to manage psychological stress" (Lazarus, 1993, p. 237). There is no one superior coping strategy that exists. The efficacy of the coping process is determined by immediate and long-term effects regarding the stressful encounter. This process should not be related to achieving mastery over a given situation. Instead, the affected person employing coping skills is able to accept, lessen, or overlook the stressful encounter (Lazarus & Folkman, 1984). Coping efforts help mediate primary and secondary appraisals and are described along two dimensions, problem management (problem-focused) and emotional regulation (emotion-focused). In problem-focused coping efforts, the strategy employed is to alter the stressful encounter by seeking information and acting on the information. This is usually achieved by altering the disturbing situation or oneself (Lazarus, 1993; Parker et al., 2012; Wethington et al., 2015). Emotion-focused coping efforts are geared toward modifying one's internal thought processes or feelings regarding the stressful encounter usually by pursuing social support, expressing feelings, and/or employing avoidance or denial tactics (Wethington et al., 2015). Western societies (e.g., the United States) tend to activate problem-focused coping skills more often than emotion-focused with a preference toward action rather than emotionally unpacking the stressful situation (Lazarus, 1993). However, in the presence of a high alert threat or uncontrollable situation, one may activate emotion-focused coping strategies and disengage or avoid the situation, which is inherently dysfunctional and can lead to elevated levels of distress mediated by intrusive thoughts. Coping outcomes are assessed and measured based on how the person adapted to the stressful situation. Outcomes are informed by one's

primary and secondary appraisal and the coping efforts used (Wethington et al., 2015).

According to Wethington et al. (2015), "Three main categories of [coping] outcomes are

emotional well-being, functional status (health status, disease progression, and

physiological biomarkers), and health behaviors" (p. 230).

Health Impact

It is accepted knowledge that processes informed by stress, emotion, and coping

are contributors to physical illness (Lazarus & Folkman, 1984). The accumulation of

stressors over one's life can lead to an increased allostatic load (physiological

impairment), resulting in unfavorable health outcomes (Gómez-Gascón et al., 2013;

Wethington et al., 2015). Racism serves as an example of a chronic stressor possibly

experienced by URMs in the United States. Experiences of racism and associated

discrimination have been shown to have direct and indirect effects regarding health status

leading to health disparities among URMs (Wethington et al., 2015). Racial

discrimination can have deleterious effects on psychological health, as well, by

worsening the symptoms of other existing stressors (Bernard et al., 2017). Chronic

stressors and coping coupled with burnout symptoms may also lead to diminished health

in those affected.

Emotional Exhaustion

The experience of EE is the foundational stress measure in burnout. The available

literature purported that the EE subscale of the burnout assessment informed stress-

associated health outcomes more than the other two subscales, depersonalization and

personal accomplishment (Grayson & Alvarez, 2008; Maslach et al., 2001; Maslach &

Leiter, 2008). EE leads to depersonalization, which serves as a disadvantageous coping strategy, resulting in feelings of ineptitude (Parker & Salmela-Aro, 2011). Regarding educators, EE develops secondary to the educators' inability to physically and emotionally contribute to student well-being as a result of overpowering experiences of tiredness and stress (Grayson & Alvarez, 2008). Diminished emotional capacity leads to EE, which is usually a product of a lack of reciprocation in occupational interpersonal relationships (Zolnierczyk-Zreda, 2005).

Burnout and Health

The attempts to regulate emotion informed by one's occupation often exists in direct competition with one's own baseline emotional state, leading to adverse health outcomes and contributing to burnout (Bartram et al., 2012). Occupational stress is hazardous to one's physical health and mental well-being and is an adverse outcome for those experiencing chronic job stress (e.g., burnout; Maslach & Leiter, 2008). Burnout has also been recently linked to experiences of impostor phenomenon. This relationship has led to increased numbers of suicide among those most affected (Gottlieb et al., 2020). The burden of emotional exhaustion as a major component of burnout often results in physical tiredness, illness, social problems, and psychosomatic disease (Grayson & Alvarez, 2008; Maslach, 1978). Those with burnout reported increased misuse and/or abuse of alcohol and illicit drugs. These substances are used to help reduce stress and deal with the associated emotional toll that burdens the individual secondary to ill-equipped coping strategies. Some have sought mental health counseling to address their personal failures as they may not recognize the symptoms as components of burnout

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(Maslach, 1978). Burnout is heavily associated with mental health disorders, psychiatric symptomatology, elevated cortisol levels, and physiological arousal. Adverse mental health outcomes include flat affect, irritation, anxious state, feelings of guilt, incompetence, fatigue, mental distress, and indignation (Awa et al., 2010; Grandey et al., 2012; Schaufeli et al., 2001). Decreased self-esteem and self-efficacy is also common in those affected by burnout (Grandey et al., 2012; Maslach et al., 2001). Burnout has led to elements of neuroticism and also contributed to occupational-related neurasthenia (Maslach et al., 2001). Physical manifestations of illness are reported in educators experiencing burnout to include headache and increased incidences of viral illnesses such as the common cold and influenza. More serious physical ailments, including cardiovascular disease symptoms, have also been reported in this population (Grayson & Alvarez, 2008).

Review of Select Burnout Interventions

Health education/promotion interventions are needed to help prevent and/or reduce occupational burnout. These interventions are important in order to increase the quality of life of affected employees as well as help the organization avoid economic downfalls secondary to decreased retention and absenteeism (Awa et al., 2010; Siu et al., 2014). Burnout interventions should be thoroughly planned and give credence to individual-level and organizational-level contributors. The end result should positively affect burnout as well as mental health (Awa et al., 2010). Physician-oriented burnout studies have indicated that burnout interventions focusing on the organizational level are

more effective compared to individual-level health interventions (AAPA Task Force on PA Burnout, 2020).

Individual Level

Certain demographics among educators have been shown to exhibit discordant burnout characteristics. For example, gender potentially serves as a mediating factor. It has been found that men report more feelings of depersonalization and harbor negative attitudes toward students, while women experience higher levels of emotional exhaustion and feelings of low personal accomplishment. The relationship between burnout and age and burnout and years in education has been inconsistent, most notably in varying communities and diverse cultures (Grayson & Alvarez, 2008). In physicians, burnout had a correlation to depressive disorders and was associated with substance abuse and suicidal thoughts (AAPA Task Force on PA Burnout, 2020). Therefore, it is prudent to explore health interventions targeting health providers and medical educators to offer positive health benefits.

Maricuțoiu et al. (2016) related that individual-level health interventions began based on the notion that burnout results from poor individual adjustment to a worksite where it is challenging to implement change. On the individual level, those affected by burnout usually experience a decreased sense of well-being, somatic symptoms, mental distress, anxiety, depressive symptoms, and low self-esteem (Siu et al., 2014). Health interventions targeting the individual level usually employ a cognitive behavioral approach. The aims of the intervention usually include elevating job competency, enhancing interpersonal skills, social support, individual coping skills, and relaxation

methods (Awa et al., 2010; Maricuţoiu et al., 2016). Awa et al. (2010) hypothesized that individual-level burnout health interventions reaped short-term benefits for symptom reduction and better occupational mental health.

Cognitive behavioral therapy (CBT) interventions are meant to help the employee develop effective coping strategies for stress triggers. The assumption is that the individual's perception of the environment influences emotion and associated behavior. The premise of the CBT interventions is if the perceptions and assumptions about oneself and the work atmosphere can be positively altered, then stress and burnout can be prevented (Maricuţoiu et al., 2016). Mindfulness-based techniques and meditation are widely used for stress reduction at the individual level. These techniques have been shown to lower burnout in health providers by allowing them to acknowledge stressful situations without a sense of being overpowered. Gratitude is also introduced through mindfulness and meditation by purposefully acknowledging positive contributors and assigning gratitude to thwart negative feelings, which is a common symptom of burnout (AAPA Task Force on PA Burnout, 2020). Mindfulness, meditation, and relaxation-based interventions are based on the premise that the physiological benefits of meditation (e.g., decreased physiologic arousal) lead to decreased burnout. Studies regarding the efficacy of these methods implied positive effects on burnout. However, other studies have reported mixed results regarding decreasing burnout with relaxation techniques (Maricuţoiu et al., 2016). Individual-level interventions also encourage abstinence from bringing work home and performing job duties outside of dedicated work hours whenever

possible. This practice allows for time to enjoy personal interests (AAPA Task Force on PA Burnout, 2020).

Organizational Level

Organizational-level interventions strive to offer employee skills in organizational cultivation and change (Gómez-Gascón et al., 2013). These types of interventions are less utilized than individual-level interventions; however, they are useful in diminishing occupational stressors by implementing change within the organization (Maricuţoiu et al., 2016). Burnout affects the organizational level by exacerbating EE, which leads to decreased job satisfaction, reduced commitment, absenteeism, flawed performance, and unfavorable occupational behaviors (Siu et al., 2014). According to Gómez-Gascón et al. (2013):

> A series of factors are usually observed at an organizational level: organizational bureaucratic culture with scarce actual participation in the decision-making process that may affect the staff; performance evaluation based on quantitative aspects and limited appreciation of qualitative ones; poor organization of tasks, job assignments, and macro-social factors such as degree of complexity and difficulty, lack of supervisor and partner support, scarce encouragement for team work, unjustified lack of resources, low or no planning, few possibilities for promotion; and additional factors. (p. 173)

Considering these organizational factors, health interventions should initially begin with organizational leaders in order to determine commonly shared work culture disparities. From there, management should meet with employees to focus on the existing

gaps (Leiter & Maslach, 2005). Burnout does not develop due to individual maladies. Instead, it is a workplace issue due to the existing social environment secondary to organizations cultivating how employees interact with each other and how they perform their job duties. Burnout risk increases when the organization does not adequately recognize the human emotion attached to a job that can lead to disparities between the organizational culture and the employees' cultures (Grayson & Alvarez, 2008; Leiter & Maslach, 2005). Successful organizational-level interventions are usually manifested in procedural changes, restructuring of job duties, shared decision-making, and expanding job control (Awa et al., 2010). Therefore, it is important to prioritize organizational contributors that lead to a positive and supportive work environment (Hoff et al., 2019). Regarding burnout in the health professions and the PA profession, systemwide interventions are needed with a focus on interprofessional health teams, PA education, and the health system. These interventions can include focused burnout health education and prevention interventions in the educational setting and during clinical training. The goal is to provide tools to avoid or reduce burnout as well as bolster health provider well-being (AAPA Task Force on PA Burnout, 2020).

Desired Outcomes

Stress reduction is a desired outcome of burnout prevention interventions with approaches focusing on problem sources rather than the symptoms (Innstrand et al., 2004). Other desired outcomes include increasing self-efficacy and work performance (Breso et al., 2011). Recent studies are focusing more on achieving job engagement as the desired outcome of burnout interventions. Engagement is the opposite of burnout

(Shanafelt & Noseworthy, 2017) and is defined as a constant, positive state of affective motivation leading to feelings of employee fulfillment characterized by absorption, dedication, and vigor (Maslach et al., 2001). Vigor is a state of elevated mental pliability, which leads to increased work effort and persistence when challenging situations arise. Dedication is a sense of importance and taking pride in one's work. Absorption is devoting full attention to one's job duties. Together these components lead to engagement, which enhances motivation (Breso et al., 2011). Leiter and Maslach (2005) offered that engagement neutralized burnout by replacing EE with increased levels of enthusiasm, bitter feelings with compassionate care, and anxious states with elevated self-efficacy. While occupational stress and demanding job duties lead to burnout, adequate job resources lead to more job engagement. Engagement focuses on the job at hand and offers a more involved viewpoint regarding the employee-occupation relationship (Maslach et al., 2001). Burnout health interventions' desired goal should be to increase job engagement, which, in turn, results in an increased perception of employee professional efficacy (Maslach & Leiter, 2008).

Best Practices

Burnout health interventions should effectively address stress by offering coping strategies at both the individual and organizational levels. This leads to a decrease in psychological distress and the propensity to develop adverse health outcomes (Margaret et al., 2018). Stress contributors are similarly shared between educators and health professionals (e.g., decreased resource availability, increased workloads, conflated expectations, and difficult conversations with patients and/or students or guardians;

Bruce, 2009). For clinician educators (e.g., URM PA educators), burnout interventions should address organizational contributors to excess stress such as "insufficient time to prepare for teaching responsibilities and stay[ing] current in [the] profession, feeling overworked, high job demands, role conflict, inadequate resources, increasing class sizes, organizational rigidity, student discipline, and the absence of reward and recognition" (Bruce, 2009, p. 59). Regarding the PA profession, current, effective interventions aim to better the lives of clinicians, simplify workflow processes, bolster teamwork, and encourage work-life balance and resilience (Coplan et al., 2018). Interventions can be described as primary, secondary, and tertiary. Primary interventions focus on altering or canceling out occupational stress due to environmental factors. Secondary interventions focus on the individual by providing coping resources. Tertiary interventions address the rehabilitation of employees already affected by health problems exacerbated by stress. Burnout interventions employing stress management techniques are deemed secondary and tertiary interventions. However, primary prevention interventions are more efficacious than secondary and tertiary and are preferred (Siu et al., 2014). Parker et al. (2012) advised that interventions should strive toward reducing emotion-focused coping mechanisms and lessen resource allocation while encouraging problem-focused coping strategies. Organizational-level interventions should also move toward securing psychological safety among team members to ensure the free expression of emotions without associated risk or retribution (Grandey et al., 2012).

Burnout health interventions should address the six domains of the work environment: workload, control, reward, community, fairness, and values (Leiter &

Maslach, 2005; Maslach & Leiter, 2008). Overworking is a leading source of burnout especially when the duties exceed the employee's limits. Elevated workload is directly related to the EE component of burnout. EE results from the depletion of personal capacity associated with completing job duties. The key contributor is when employees are unable to fully recover from their demanding workloads. By providing a tenable workload as a goal of the health intervention, the employee is able to develop new skills as well as use existing skills leading to better occupational effectiveness (Leiter & Maslach, 2005; Maslach & Leiter, 2008). Control occurs secondary to role conflict and is also strongly associated with EE. Burnout is also increased when there is a lack of reward for peoples' work, be it financial, social, or organizational incentives. Lack of reward depreciates the value of the work and the employees. Community, or lack thereof, is important in the forms of social support, conflict management, togetherness, and team capacity. Lack of leadership support is related to emotional exhaustion and impacts workload. Community helps diminish feelings of occupational inequities, with social support being associated with larger job engagement. Available research supported diminished burnout in constructive, supportive work environments (Leiter & Maslach, 2005; Maslach & Leiter, 2008). Fairness is the perception of fair and equitable practices on the job. Employees are most concerned with the fairness of procedures and processes than the actual outcome. Work environments with fair and equitable supervisors have less burnout susceptibility and are more welcoming of organizational shifts. Values represent psychological and emotional influence and expectations of the job. When there are disparities between employee and organizational values, employees usually find

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themselves with the dilemma of performing assigned tasks versus preferred tasks. Value conflicts are associated with all three subscales of burnout and are predictive of burnout and engagement levels. When both personal and organizational values prioritize shared knowledge, the result is increased professional efficacy (Leiter & Maslach, 2005; Maslach & Leiter, 2008).

When deciding the approach, it is important that there is buy-in from the employees and the leadership, as this is vital to the intervention's success (Innstrand et al., 2004). Individual and organizational level interventions widely subscribe to "physical exercise, stress awareness training, seminars or health circles, practice of mastery, strengthening of social support, introduction of a bottom-up organizational structure or a work redesign . . . to buffer the harmful effects of stress and strain" (Innstrand et al., 2004, p. 120). All of the stressors do not have to be reduced at the same time; it is important to choose the most pressing concern. By choosing a major issue, the outcome is most likely to have a lasting effect due to the uptake of steadfast solutions (Innstrand et al., 2004). Organizations can also implement praise for work well done. This positive feedback allows employees to gauge how they are performing and also identify areas of improvement. It also provides a perception of shared input and greater control over job duties (Maslach, 1978). It is necessary for organizations to develop and deploy targeted burnout prevention interventions and change employee mindsets from broken to an engaged and empowered participant in achieving a positive future and better occupational outlook (Shanafelt & Noseworthy, 2017). A stepwise approach for work unit/organizational intervention is offered by the Mayo Clinic. Shanafelt and Noseworthy

(2017) stated to begin by assembling the team composed of a managerial consulting team to garner experience in leadership and engagement. The team then meets with leaders from the varying departments to gather insight and perspective on departmental and institutional challenges. This initial data gathering is followed with focus groups to provide the premise of the intervention; establish discussion parameters, while discussing burnout/engagement contributors; discuss the existing challenges; identify the prevailing challenge; and begin discussing solutions for process change. After the data are analyzed from the focus groups, the information is then provided to the departmental leader to begin working with a consultant to initiate change and to begin empowering the employees. The departmental leader leads the process change and begins positive reinforcement and feedback with the employees; voices the challenges shared and the identification of the prevailing issue; and partners with an employee to help lead the organizational change. Once the process change has taken place, impact is assessed. Even if the desired outcome of the intervention is not achieved, burnout may be reduced and engagement increased. Then, the team should move on to the next pressing issue (Shanafelt & Noseworthy, 2017). As outlined in the aforementioned model, a combination of individual-level and organizational-level interventions is necessary to help positively change the six domains of the work environment, while also empowering and honing the skills of the individuals (Maslach et al., 2001).

Engagement is an advantage to employing combination interventions, which allows for better alignment with the organization's mission, most notably quality of work and life. This also allows for increased interventional accountability (Maslach et al.,

2001). These multi-level interventions allow employees to be engaged in organizational change while also promoting social interaction on the interpersonal level, including components of self-efficacy, leadership, and social support (Gómez-Gascón et al.). Combination interventions, as well as organizational, usually last approximately 2 to 6 months compared to individual-level interventions lasting 2 days to 3 months. Positive change regarding burnout usually sustains up to six months with individual-level interventions, while organizational or combination interventions have lasting results upward to 1 year. With these interventions, refresher sessions can lead to greater sustainability of positive burnout effects (Awa et al., 2010).

Regarding URM educators in academic medicine, researchers at the University of California – San Diego offered strategies from their successful establishment of the National Center for Leadership in Academic Medicine. This organizational-level intervention's goal was to bolster productivity and elevate junior faculty career prospects by establishing connections between junior and senior faculty members, the institution, and available resources (Daley et al., 2006) with an emphasis on URM educators. To diminish faculty isolation, the intervention integrated URM junior faculty into the existing institutional social networks, provided targeted mentoring to encourage instructional and scholarly activities and the creation of professional networks (Daley et al., 2006). This intervention has been consistently successful. An associated longitudinal study showed that consistent institutional and policy interventions resulted in expanding faculty diversity, equitable practices, courteous behavior, and improved institutional climate (Wingard et al., 2018).

Summary

Increased diversity in health professions education offers benefits to the national health system in the form of positive health outcomes (Nivet, 2010; Rodriguez et al., 2014). This added value is brought forth by URM educators' unique perspectives regarding instruction and research as well as their guidance and mentorship to URM health professions students (Nivet, 2010). URM medical educators usually attempt to balance their time between time-consuming committees, community service, and helping address nonacademic issues with URM students. These activities are not always contributory toward their promotion and tenure (Cohen, 1998), which serves as a burnout contributor. In PA education, there is disparate URM representation regarding the national racial demographics data representing all PA faculty. Of 1,233 respondents, URMs ($n = 111$) constitute approximately 9.0% of all reported PA educators (PAEA, 2020a). These numbers are representative of principal faculty and those in leadership positions, which further highlights the opportunity gap in PA education regarding URM PA educators. Systemic barriers exist for URM educators in academic medicine, which are further propagated by the dominance of the majority-centered policies and procedures (Sotto-Santiago et al., 2019). URM PA educators-related barriers such as isolation, increased social responsibility, institutional pushback regarding diversity, hypocrisy, bias, and microaggressions (LeLacheur et al., 2019). These persistent stressors can lead to burnout.

Burnout is the result of incessant occupational stress (Schaufeli et al., 2001; WHO, 2020). Increased EE is an essential element of experiencing burnout and serves to

exacerbate associated symptoms (Maslach & Jackson, 1981). Burnout is measured on the individual level, but is an organizational problem that warrants recognition, adequate assessment, and initiation of proper strategies that target the human nature of employees (Leiter & Maslach, 2005). URM PA educators are both clinicians and academicians. Health care providers (e.g., PAs, nurse practitioners) experience persistent stress, which further increases chances of experiencing burnout (Essary et al., 2018; Tetzlaff et al., 2020). Combining clinical practice and education, both high-demand occupations, increases incidences of burnout (Bruce, 2009; IsHak et al., 2013). Clinician educators' roles are multifaceted, having to fulfill the role of health care provider, educator, researcher, and, at times, administrator. This role ambiguity leads to stress (Dandar et al., 2019). Additionally, URM educators also usually add the responsibility of institutional or programmatic diversity, equity, and inclusion initiatives to their workload (Essary et al., 2018).

Stress is the foundational contributor to burnout and is defined as a persistent process of input and output stimuli that is associated with primary and secondary appraisal and eventual deployment of coping strategies (Lazarus, 1990). Coping is the psychological and behavioral mechanisms used to manage stress (Lazarus, 1993). The mechanisms used are not deemed as superior or inferior, but instead measured by their short- and long-term effects (Lazarus & Folkman, 1984). An accumulation of stress and persistent use of coping strategies can lead to somatic dysfunction (Gómez-Gascón et al., 2013; Lazarus & Folkman, 1984; Wethington et al., 2015). In burnout, EE is the primary measure of stress (Grayson & Alvarez, 2008; Maslach et al., 2001; Maslach & Leiter,

2008). Burnout is linked to mental health maladies and decreased levels of self-efficacy and self-esteem (Grandey et al., 2012; Maslach et al., 2001).

Health interventions targeting burnout should be carefully planned and assuredly address individual- and organizational-level factors (Awa et al., 2010). Individual-level interventions usually apply mindfulness and meditation techniques to help with stress reduction (AAPA Task Force on PA Burnout, 2020). Organizational-level interventions decrease job-related stressors by enforcing procedural and process change within the organization (Awa et al., 2010; Maricuțoiu et al., 2016). Burnout health interventions seek to reduce stress, increase self-efficacy, and improve work performance (Breso et al., 2011; Innstrand et al., 2004). However, the most current research recognized job engagement as the desired outcome (Shanafelt & Noseworthy, 2017). Job engagement is achieved by offering job resources to decrease stress and confusion surrounding job duties (Maslach et al., 2001). To better achieve engagement, burnout interventions should also devote effort to the six domains of the work environment, including values, fairness, community, reward, control, and workload (Leiter & Maslach, 2005; Maslach & Leiter, 2008). It is also imperative that the intervention has buy-in from the employees and the organizational leaders. When conducting an intervention, highlight the most prevalent stressor and address it first, which then leads to a more sustainable outcome (Innstrand et al., 2004). Combination (individual- and organizational- level) burnout interventions are necessary in order to address the six domains of the work environment, leading to positive burnout health outcomes (Awa et al., 2010; Maslach et al., 2001). These types of interventions have sustainable effects up to 1 year, and the benefits can be extended by

offering refresher sessions (Awa et al., 2010). These interventions have been proven

efficacious in increasing faculty diversity, establishing equitable institutional policies,

and improving the work climate for URM academic medicine educators (Wingard et al.,

2018).

CHAPTER III

METHODS

This chapter describes quantitative and qualitative methods that were employed to conduct a research study on the perception of burnout in URM PA educators in the United States in order to inform future health interventions. An electronic version of the MBI-ES was used along with a demographic questionnaire. Semistructured interviews were conducted to gather information on burnout contributors, appraisal, and coping strategies among the sample population. An Internet link with a digital survey was sent to URM PA educators from across the United States. After the quantitative data collection ended, a sample of participants representative of each U.S. region (Northeast, South, Midwest, West) as classified by the U.S. Census Bureau and included in the PAEA Faculty Report 34 (PAEA, 2019) was invited to participate in semistructured interviews. The semistructured interviews were conducted until saturation, plus two more interviews.

Population and Sampling

Participants in this study were URM PA educators located throughout the United States. To be eligible for this study, participants must have self-identified as a URM as defined by PAEA, "Hispanic, a single non-White race, or a non-White race in combination with White race" (PAEA, 2020a, p. 5), and be employed as an educator at a developing or accredited PA program. Non-URM PA educators were excluded from the study. Snowball sampling was used for the proposed convenience sample. Participants

were purposefully recruited nationally via the annual PAEA education conference, PAEA minority special interest group roster, online modalities: PAEA (professional learning communities and digital learning hub) and Facebook groups ("Physician Assistants of Color" and "African Heritage PA Caucus"), and word of mouth. Each potential participant received detailed messaging explaining the purpose of the study. Informed consent was digitally collected for all participants explaining procedures for data collection, confidentiality, participants' rights, associated risks, possible benefits to the PA profession, and author qualifications. Utilizing The Survey System's (2012) sample size calculator, based on a survey data error rate of 4% along with an estimated population size of 111 U.S. URM PA educators (PAEA, 2020a), the sample size for this study should be 94. Participants were purposefully chosen to participate in the qualitative portion of the study, which continued until saturation plus two more interviews was achieved. Using the "saturation plus two" method allowed for saturation to be met by ensuring no new themes emerged during the semistructured interviews (Birks & Mills, 2014).

Institutional Review Board and Protection of Human Participants

An application was submitted to the Texas Woman's University Institutional Review Board (IRB) for exempt status. The IRB granted exempt status in December 2020. The study was conducted in accordance with the decision made by the IRB. Research was conducted in accordance with ethical research standards as outlined in the Helsinki Declaration.

Data Collection Procedures

Participants anonymously completed the quantitative portion of this study. Raw data was then viewed by the researcher. Data will be stored for 3 years and then destroyed.

Quantitative Procedures

One hundred twenty-five licenses for the electronic version of the MBI-ES were purchased from Mind Garden, Incorporated. A link to the MBI-ES with a demographics survey was emailed to all participants meeting inclusion criteria ($n = 229$). A follow-up email was disseminated 2 weeks after initial contact to encourage participation. Data were then downloaded from the PsychData digital platform into the Statistical Package for Social Sciences (SPSS) version 25 for Mac for subsequent analysis on the emotional exhaustion subscale of the MBI-ES and participant demographics.

Qualitative Procedures

After the quantitative data analysis was completed, participants were selected representative of the four U.S. regions for semistructured interviews. These interviews were conducted using the Zoom platform, with telephone as a backup option. Burnout was defined and mutual understanding reached between the interviewer and participant before the semistructured interview began. Each interview was recorded using the Zoom platform and a digital recorder. Each interview was transcribed using Rev's transcription service and then entered into NVivo 13 for Mac for coding and analysis.

<center>**Instrumentation**</center>

Quantitative Instruments

Maslach Burnout Inventory – Educators Survey

The MBI-ES is a validated, reliable tool that measured burnout in the target

population (see Appendix B). It is the standard tool used to measure burnout.

Approximately 90% of research and dissertations have used the MBI-ES as the preferred

data collection tool (Gómez-Gascón et al., 2013; Maslach et al., 2018; Maslach & Leiter,

2008; Parker et al., 2012; Schaufeli et al., 2001; Zolnierczyk-Zreda, 2005). The MBI

consists of items "written in the form of statements about personal feelings or attitudes"

(Maslach & Jackson, 1981, p. 100). The tool is divided into three sections: EE (nine

items), personal accomplishment (eight items), and depersonalization (five items),

totaling 22 items (Maslach & Jackson, 1981). Each item is presented on a Likert scale of

0 to 6 (0 = *never*, 1 = *a few times a year or less*, 2 = *once a month or less*, 3 = *a few times

a month*, 4 = *once a week*, 5 = *a few times a week*, and 6 = *every day*) representing

frequency of experiencing feelings associated with the corresponding statement (Maslach

et al., 2018). The sections are then scored separately. The MBI-ES is an internally

reliable tool with Cronbach's alpha estimates as follows: EE = 0.90, depersonalization =

0.76, and personal accomplishment = 0.76 (Maslach et al., 2018). For this study, the

MBI-ES was distributed digitally; therefore, internal reliability of the digital MBI is also

reported: EE = 0.87, depersonalization = 0.76, and personal accomplishment = 0.84

(Chang, 2013). Validity has been established through multiple studies correlating the

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three burnout subscales with work conditions, conflicting job roles, and social support (Maslach et al., 2018).

For this research study, the EE subscale data were analyzed. EE was solely measured due to Maslach et al. (2018) assigning the most importance to this subscale due to its reliability. EE is the primary measure of burnout and is also the most frequently reported and most evaluated burnout subscale (Maricuțoiu et al., 2016; Maslach & Leiter, 2008). Emotional exhaustion is associated with feelings of being overextended and depletion of emotions and physical resources, which can manifest as fatigue and stress (Grayson & Alvarez, 2008). This subscale serves as the foundational stress dimension informing other burnout subscales, e.g., EE may lead to depersonalization (Breso et al., 2011; Maslach et al., 2001; Parker & Salmela-Aro, 2011). A sample EE item from the MBI-ES is: "I feel burned out from my work" (Maslach et al., 2018, p. 66).

Demographics Survey

A demographics survey was created by the researcher and preceded the MBI-ES. This survey (see Appendix C) was digitally distributed and all of the participants provided self-identification for the following demographic variables: age, gender, race as included in the PAEA Faculty 34 report, faculty role, and "years in faculty position." Age, race, and "years in faculty position" had pre-populated categorical ranges. Gender included man, woman, and prefer not to answer choices. Faculty role included pre-populated choices with instructions to select the participant's primary role. For each demographic, participants were limited to making only one selection for each variable.

Qualitative Instrument

The researcher constructed seven questions that were used in the semistructured interviews (see Appendix D). The questions were open ended and meant to encourage participants to share their perspectives free of researcher-influenced bias. The qualitative instrument was piloted on a URM clinician educator employed at the University of Washington Medical Center in Seattle, Washington. Their feedback per question is included in Appendix E and was taken into consideration when the researcher conducted the semistructured interviews.

Data Analysis

Quantitative Analysis

Data analysis of the MBI-ES emotional exhaustion subscale and demographic variables was conducted using SPSS 25 for Mac. Research Question 1 – How do demographic factors (age, gender, self-identified race, faculty role, and "years in faculty position") relate to U.S. URM PA educators' Maslach Burnout Inventory (MBI) subscale score for emotional exhaustion*? —* was answered by performing the following statistical analyses to explore the bivariate relationship between emotional exhaustion and demographic variables (see Table 1). A one-way analysis of variance (ANOVA) for the categorical data of race, faculty role, and "years in faculty role" was performed, assessing between-group differences. An independent samples *t*-test was also performed on gender (man or woman variables) and its relation to EE, and a correlation analysis (Pearson's *r*) was used for the age demographic variable and emotional exhaustion. Research Question

2 — How do demographic factors (age, gender, self-identified race, faculty role, and "years in faculty position") predict emotional exhaustion in U.S. URM PA educators? A multiple linear regression was performed to predict the overall relationship between all of the demographic variables and emotional exhaustion. The results of the quantitative data were compared to the qualitative data themes to assess for possible associations and then triangulated with the available literature to better inform the study findings.

Table 1

Quantitative Variables, Data Collection Tools, and Data Analysis

Research question	Dependent variable	Data collection tool	Independent variable	Data collection tool	Data analysis
1	EE	MBI-ES	Age	Demographic survey – self-reported	Pearson's r (correlation)
1	EE	MBI-ES	Gender	Demographic survey – self-reported	t-test
1	EE	MBI-ES	Race	Demographic survey – self-reported	ANOVA
1	EE	MBI-ES	Faculty role	Demographic survey – self-reported	ANOVA
1	EE	MBI-ES	"Years in faculty position"	Demographic survey – self-reported	ANOVA
2	EE	MBI-ES	Age, gender, race, faculty role, "years in faculty position"	Demographic survey – self-reported	Multiple linear regression

Qualitative Analysis

Audiovisual recordings of the semistructured interviews were transcribed using Rev and then entered unabridged into NVivo version 13 for Mac. Transcripts were reviewed, coded, and organized into overarching parent codes to answer Research Question 3 — How do underrepresented minority (URM) physician assistant (PA) educators in the United States perceive burnout? a) What, if anything, do URM PA educators in the United States describe as contributing aspects to burnout? b) What burnout coping strategies, if any, do URM PA educators in the United States employ? — and to help inform future burnout prevention interventions. Data were then presented visually as mind maps and as direct quotes. The qualitative data themes were compared to the quantitative data results to assess for possible associations and then triangulated with the available literature to better inform the study findings.

Ensuring Qualitative Data Gathering Rigor and Credibility

Reflexivity

The researcher acknowledged certain biases that could have influenced the qualitative data gathering process and subsequent data analyses. By acknowledging existing biases, the researcher worked to ensure an unbiased approach to data collection and analysis. The researcher is a U.S. URM PA educator. He has been a PA since 2008 and a full-time educator since 2014. The researcher is also well known nationally in PA education serving as the chair of the PAEA's Diversity and Inclusion Mission Advancement Commission and the feature editor of the Justice, Equity, Diversity, and Inclusion (Cultural Perspectives) section of the *Journal of Physician Assistant Education*.

The researcher acknowledged that the aforementioned factors likely had an effect on the research results. To help lessen any biased influence, the researcher asked open-ended questions and did not engage with the interviewee beyond the context of the question prompt. The researcher also included negative cases in the results to ensure that data was not skewed to support possible personally biased assumptions.

Member Checking and Peer Debriefing

To support credibility of the coding process and the final qualitative data, the researcher employed member checking and peer debriefing. The researcher met with participants of the semistructured interview to confirm findings and review the codes. For the peer debriefing process, two PA educator colleagues reviewed the qualitative data and coding process. The final qualitative data represented the input from the member checking and peer debriefing process.

Summary

This is a national mixed-methods study assessing perceived burnout in URM PA educators in order to inform future burnout prevention interventions. EE was measured using the MBI-ES and demographic variables were collected using a demographic survey. All quantitative data collection tools were distributed to the participants using an online digital platform. Quantitative data were analyzed to determine relationships between emotional exhaustion and demographic variables. Select participants were invited to participate in semistructured interviews to gain further insight on stressors, appraisal, coping strategies, and current or desired programmatic and institutional burnout interventions. The qualitative and quantitative data were then triangulated for a

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more robust understanding of perceived burnout in URM PA educators in the United

States.

CHAPTER IV

RESULTS

The researcher employed a mixed-methods approach to identify external and

internal contributors leading to perceived burnout among U.S. URM PA educators while

also considering how primary and secondary appraisal informed their burnout coping

strategies. The researcher also examined whether there was a relationship between the

burnout subscale, EE, and age, gender, self-identified race, faculty role, and "years in

faculty position" in the target population.

Demographics

Quantitative Demographics

The MBI-ES was completed by 109 U.S. URM PA educators. After data cleaning,

101 participants were included in the data analysis. Participant ages represented the

following categories: 20–34 years (10%), 35–44 years (34%), 45–54 years (35%), 55–64

years (17%), and 65 years and above (4%; see Table 2). Regarding gender (see Table 3),

25.7% of participants identified as a man and 74.3% identified as a woman. Self-

identified race (see Table 4) demographics were as follows: American Indian or Alaskan

Native (1%), Asian (14%), Black or African American (60%), Multiracial (11%), Native

Hawaiian or other Pacific Islander (2%), and White/Latina/o/x (12%). The faculty roles

held by the participants included principal faculty (49.5%) followed by program director

(17.2%), clinical coordinator/director of clinical education (15.2%), academic

coordinator/director of didactic education (7.1%), associate program director (6.1%), and medical director (5.1%; see Table 5). As none of the participants held the position of director of research, this demographic was excluded from the data analysis. Relating to years in faculty position (see Table 6), 45.5% of participants had been employed 0–4 years with the remainder represented as follows: 5–9 years (31.7%), 10–14 years (12.9%), 15–19 years (1%), and 20 years and above (8.9%). Therefore, most of the participants were 45 years and older (56%), women (74.3%), Black or African American (60%), employed in a faculty leadership role (50.5%), and had been a PA educator for five or more years (54.5%)

Table 2

Frequency of Participant Age

Age	Frequency	Percent (%)
20–34 years	10	10
35–33 years	34	34
45–54 years	35	35
55–64 years	17	17
65 years and above	4	4

Note. One participant did not report age.

Table 3

Frequency of Participant Gender

Gender	Frequency	Percent (%)
Men	26	25.7
Women	75	74.3

Table 4

Frequency of Participant Self-Identified Race

Self-identified race	Frequency	Percent (%)
American Indian or Alaskan Native	1	1
Asian	14	14
Black or African American	60	60
Multiracial	11	11
Native Hawaiian or other Pacific Islander	2	2
White (Latina/o/x)	12	12

Note. One participant did not report race.

Table 5

Frequency of Participant Faculty Role

Faculty role	Frequency	Percent (%)
Principal faculty	49	49.5
Academic Coordinator/ Director of Didactic Education	7	7.1
Clinical Coordinator/ Director of Clinical Education	15	15.2
Program Director	17	17.2
Associate Program Director	6	6.1
Medical Director	5	5.1

Note. Two participants did not report faculty role.

Table 6

Frequency of Participant Years in Faculty Position

Years in faculty position	Frequency	Percent (%)
0–4 years	46	45.5
5–9 years	32	31.7
10–14 years	13	12.9
15–19 years	1	1.0
20 years and above	9	8.9

Qualitative Demographics

Eleven U.S. URM PA educators participated in semistructured interviews. The semistructured interviews were conducted until saturation, plus two more interviews. The participants represented four regions encompassing the United States: Northeast ($n = 1$), Midwest ($n = 2$), South ($n = 4$), and West ($n = 4$). Two of the participants were within the age range of 20–34 years, while 35–44 years, 45–54 years, and 55–64 years each had a representation of three participants each. Regarding gender, there were six women and five men. The participants racially self-identified as follows: Asian ($n = 3$), Black or African American ($n = 5$), Multiracial ($n = 2$), and White/Latina/o/x ($n = 1$). Faculty role representation included five principal faculty, three program directors, two associate program directors, and one medical director. "Years in faculty position" included 0–4 years ($n = 4$), 5–9 years ($n = 2$), 10–14 years ($n = 4$), and 20 years and above ($n = 1$).

Quantitative Data Analysis

The average EE subscale score was calculated from the MBI-ES (items 1, 2, 3, 6, 8, 13, 14, 16, 20) and then used to determine whether there was a significant relationship

between EE and demographic factors (age, gender, self-identified race, faculty role, and "years in faculty position") as well as to determine whether these demographic factors predicted EE in the target population. Using word of mouth and the specified online recruitment modalities, 229 U.S. URM PA educators were invited to complete the survey. The survey response rate was 44%. Data analyses were performed using SPSS version 25 for Mac. These data determined whether the hypotheses were supported or not supported:

- Hypothesis 1: There is no relationship between demographic factors (age, gender, self-identified race, faculty role, and "years in faculty position") and their MBI subscale score for emotional exhaustion;

- Hypothesis 2: Demographic factors (age, gender, self-identified race, faculty role, and "years in faculty position") do not predict emotional exhaustion in U.S. URM PA educators.

EE and Age

Pearson's r correlation was conducted to determine the linear relationship between EE and age in U.S. URM PA educators. As shown in Table 7, the results are nonsignificant ($r = .015$, $R^2 = .000225$, $p = .883$). To further explain this finding, the coefficient of determination (R^2) was calculated to account for variance in the dependent variable, EE score. Approximately .02% of variability in age is reflected in its relationship with EE score, which further supports a negligible to no correlation between age and EE in U.S. URM PA educators.

Table 7

Pearson's r Correlation Between EE and Age in U.S. URM PA educators

	r	R^2	p
Age with emotional exhaustion	.015	.000225	.883

EE and Gender

An independent samples *t*-test was used to compare the mean score for EE between men and women U.S. URM PA educators. Results of the *t*-test indicated that there was a significant difference between EE scores and gender, $t(100) = -2.42$, $p < .05$, $d = -0.54$ (see Table 8). Based on the mean EE scores, women experience EE a few times a month to once a week, while men experience EE a few times a month.

Table 8

Independent Samples t-Test *– Means and Standard Deviations for EE and Gender*

Gender	*M*	*SD*	*t*	*p*	*d*
EE score			-2.42	.017*.	-0.54
Men	3.1	1.4			
Women	3.8	1.3			

Note. * *p* < .05

EE and Race

A one-way ANOVA test was conducted to determine if EE score differed by self-identified race in the target population. Results indicated that the effect of race on EE score was not statistically significant, $F(1, 98) = .108$, $p = .744$, $\eta 2 = .001$ (see Table 9).

Black race and all other URM racial classifications experienced burnout a few times a

month to once a week.

Table 9

One-Way ANOVA. Means and Standard Deviations of EE by Race

Variable	n	M	SD	F	p	$\eta2$
Race				.108	.744	.001
Black or African American	60	3.7	1.2			
Other URM race	40	3.6	1.4			

EE and Faculty Role

A one-way ANOVA test was conducted to determine if EE score differed by

faculty role in U.S. URM PA educators. Results indicated that the effect of faculty role

on EE score was not statistically significant, $F(1, 97) = 3.09$, $p = .082$, $\eta2 = .031$ (see

Table 10).

Table 10

One-Way ANOVA: Means and Standard Deviations of EE by Faculty Role

Variable	n	M	SD	F	p	$\eta2$
Faculty role				3.09	.082	.031
Principal faculty	49	3.4	1.2			
Leadership role	50	3.9	1.4			

EE and Years in Faculty Position

A one-way ANOVA test was performed to determine if EE score differed by the participants' years in faculty position. Results indicated that the effect of years in faculty position on EE score was not statistically significant, $F(1, 99) = .271$, $p = .604$, $\eta2 = .003$ (see Table 11).

Table 11

One-Way ANOVA: Means and Standard Deviations of EE by Years in Faculty Position

Variable	n	M	SD	F	p	$\eta2$
Years in faculty position				.271	.604	.003
0–4 years	46	3.6	1.3			
5 years and above	55	3.7	1.3			

Predicting EE Score in U.S. URM PA Educators

A multiple linear regression analysis was conducted to identify how demographic factors (age, gender, race, faculty role, and "years in faculty position") predicted EE in U.S. URM PA educators. Results indicated that the overall model was not significant, $F(5, 92) = 1.859$, $p = .109$, and accounted for 9.2% of variance in EE. Of the predictors, gender was significant (see Table 12). Based on the positive regression coefficient, going from man to woman gender classification, EE continued to increase, $\beta = .236$, $p = .021$.

Table 12

Summary of Multiple Linear Regression Analysis Predicting EE Across Demographics

Predictor	Unstandardized		Standardized		
	b	*SE*	β	t	*p*
Age	-.226	.305	-.086	-.739	.462
Gender	.704	.300	.236	2.35	.021*
Race	.086	.273	.032	.315	.753
Faculty role	.502	.286	.193	1.76	.082
Years in faculty position	.225	.282	.086	.086	.426

Note. $F(5, 92) = 1.859$, $p = .109$, $R2 = .092$, adjusted $R2 = 0.042$. * Gender was statistically significant.

Qualitative Data Analysis

Using the Zoom virtual platform, the researcher conducted 11 semistructured interviews with URM PA Educators located across the United States. The researcher asked each individual seven open-ended questions to determine how U.S. URM PA educators perceived burnout (Question 1) while also identifying burnout contributors (Question 2) and coping strategies (Question 6). Further goals of this research were to assess primary and secondary appraisal in the target population (Question 5) and to use the information gathered to help inform a burnout prevention intervention (Questions 3, 4, 7). The researcher identified major themes emanating from the interviews and concluded that saturation was met after the ninth interview. To confirm saturation, the researcher interviewed two more participants with no new themes emerging. Using NVivo version 13 for Mac, the researcher coded each interview transcript as it related to

each question. These initial codes were then reviewed and organized into appropriate categories, then organized under the parent node representative of the stem of the corresponding interview question.

Semistructured Interview Questions

1. What does burnout mean to you?

2. What, if anything, contributes to burnout for you?

3. How does your current program help you address burnout, if at all?

    a. If not, what strategies would you like to see implemented?

4. How does your current institution help you address burnout, if at all?

    a. If not, what strategies would you like to see implemented?

5. I want you to name a common work-related stress trigger. If you're comfortable, what is your usual initial response when the stress trigger occurs?

6. After your initial response to a stressful situation, what type of coping strategy or strategies, if any, do you usually use to make yourself feel better? Please explain.

7. Is there anything that you would like to add about your experience as a URM PA educator?

What Does Burnout Mean to You?

The participants were asked to relate what burnout means to them on a personal level. Their definitions, perceptions, and experiences with burnout are presented in Figure 2. Three categories emerged: decreased satisfaction, emotional toll on their well-being,

and exhaustion. Subthemes included burnout leading to decreased job satisfaction, sadness, increased stress, emotional exhaustion, and the occurrence of physical symptoms. Example quotes are included below.

Decreased satisfaction: "I guess for me, burnout is more almost when you're working so much, so hard with so much interference that you no longer enjoy the work you do. It's hard to continue the work. There's no joy in it."

Emotional toll: "Burnout, I think largely is a sense of feeling that one's efforts are futile, that [there is a] mismatch between one's feelings of what the right thing to do is, and what is happening around you . . . Increasingly, a feeling of a lack of self-efficacy."

Exhaustion: "So, it means that I'm exhausted, that I have no energy to do my work. It means that I don't feel like going to work or that I just don't enjoy even getting up and going to the office."

Figure 2

Defining Burnout – Visual Depiction of Qualitative Data
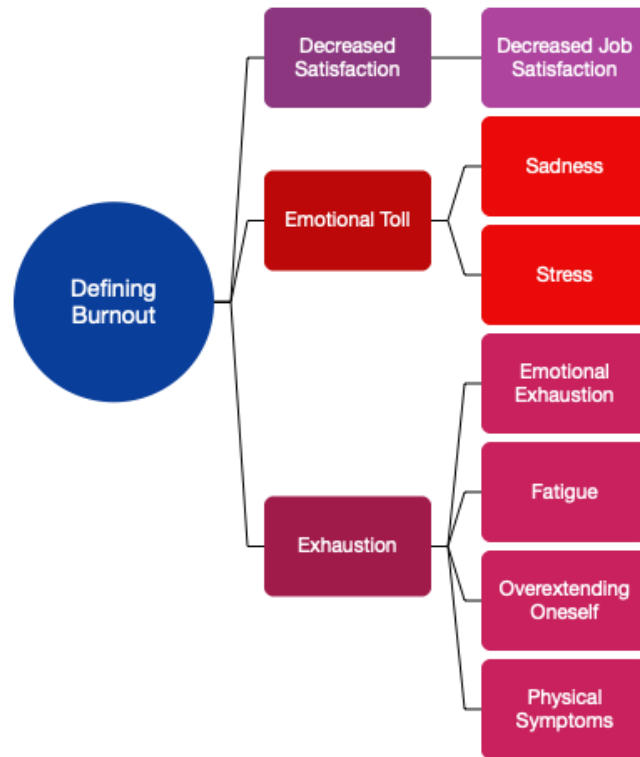
What, If Anything, Contributes to Burnout for You?

The participants provided many personal burnout contributors (see Figure 3), while one participant reported that they were not currently experiencing any burnout, stating, "So, right now, I feel like I don't have burnout. I'm quite happy in my job. I mean, in the past, I have experienced burnout, and that was when I felt overwhelmed at work." Nevertheless, the remainder of the interviewees expressed burnout contributors categorized as institutional issues, work-related stressors, social isolation, and occupational pressures. Some of the more granular influencers included isolation due to

gender, lack of diversity, lack of support, impostorism, personal expectations, and institutional policies. Interviewees related the following regarding burnout contributors.

Institutional issues: "The single largest thing with burnout is a system which does not prioritize that which it claims it does. So, to give an example, lots of mission statements, lots of value documents, lots of advertising about caring and healing and hope and all that business and not actually operationalizing that at a core level."

Work-related stressors: "But the constant inequities in higher [education], trying to overcome the barriers that have historically marginalized groups that continue to happen, despite well-intentioned administrators and people who are trying to help."

Social isolation: "But then there is also this internal pressure that I know I have as a Black woman of particularly having worked in programs, worked in different situations. I've worked in a few situations where I was the only Black person on the team, part of the organization in the program. And for me, there's this almost unconscious narrative that we heard from our parents. [You've] got to work twice as hard to get half as much, and I don't ever want to be perceived as the lazy Black girl."

Occupational pressures: "I think unrealistic expectation as a minority faculty member creates burnout for me. I think also sort of there's this personal need that I feel like I must constantly prove myself, which is a bit of sort of that impostor syndrome that I have, that I always have to do everything correct or be perfect or be great, which contributes to my burnout, especially emotionally and mentally."

Figure 3

Burnout Contributors – Visual Depiction of Qualitative Data
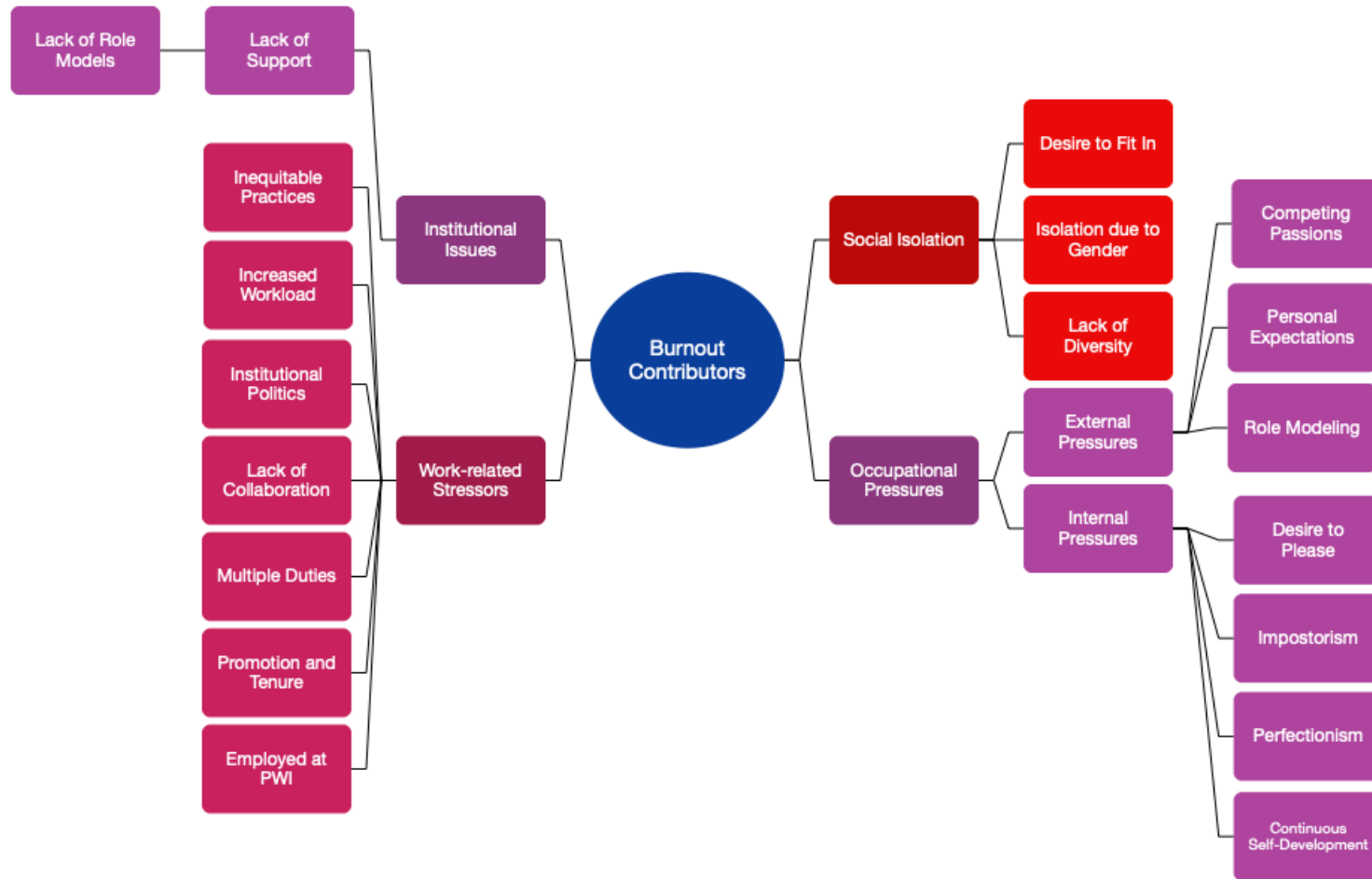
How Does Your Current Program Help You Address Burnout, If at All?

This question investigated the current strategies used at PA programs across the nation to address burnout (see Figure 4). The interviewees' answers provided three categories: faculty-facing activities, no specific programming, and valuing faculty. To fulfill the endeavor of addressing burnout, programs have provided educational modules, meditation, bonding opportunities, and being respectful of faculty time.

Faculty-facing activities: "I will say that over the last year, they've implemented some modules that they put online that you can actually take for yourself." "They continue to do meditation and so forth."

Valuing faculty: "Our program director does a good job asking how are we doing, encouraging us to take personal time, encouraging us to sort of re-center ourselves."

No specific programming: "So, I can't say that my program is doing anything to address burnout. The program is probably following my lead in that I have established boundaries, professional and personal boundaries, so that I don't feel burned out because I have felt that before."

Figure 4

Programmatic Burnout Prevention Strategies – Visual Depiction of Qualitative Data
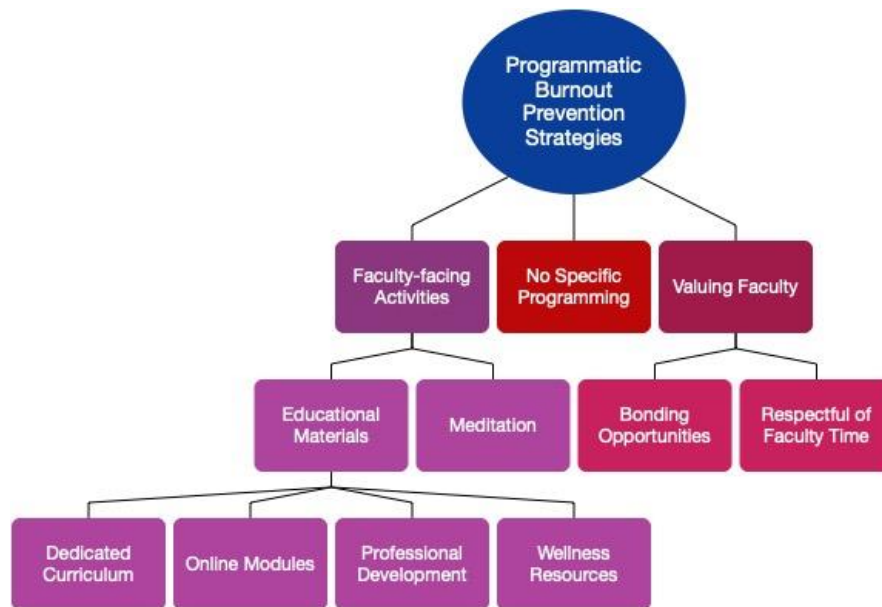
If Not, What Strategies Would You Like to See Implemented?

For PA programs that did not have any formal strategies to address burnout, the participants shared suggestions they would like to see implemented (see Figure 5). The strategies fell into two categories: faculty resources and work distribution. The participants would like their respective programs to prioritize activities such as offering a formal onboarding process, multicultural training, and allocation of a more equitable workload. Sample quotes are included below.

Faculty resources: "Really no formal training. So, I think that if there was a way to get that in for maybe people who decide to take on leadership roles within a program, I think that it would be good to have [formal] onboarding."

"The strategies would be to find either individuals who can help at the program level who have multicultural training or that themselves be trained in multicultural issues. So those are, I think, the things that would be a start because I think those are basic. I think most of the wellness is centered on Whiteness, and that's pretty much all over [the] place."

Work distribution: "I would like [a] more equitable workload so that we can have that time to address our emotional well-being."

Figure 5

Programmatic Burnout Prevention Suggestions – Visual Depiction of Qualitative Data
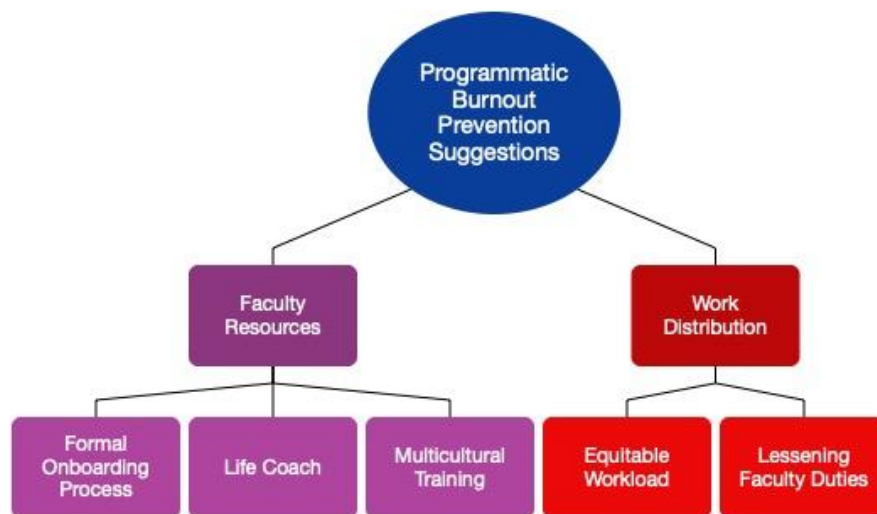
How Does Your Current Institution Help You Address Burnout, If at All?

The researcher also queried the interviewees to gauge the burnout strategies being deployed at the institutional level. Participant responses were classified into four categories: equity, diversity, and inclusion (EDI) prioritization; incentives; relaxation techniques; and no specific programming. Specific programmatic methods and tools

included lunch-and-learns, wellness resources, and mindfulness/meditation techniques (see Figure 6). Participant quotes for each category of institutional burnout prevention strategies include the following:

EDI prioritization: "The things that are good is that we have an associate vice president for health equity, diversity, and inclusion, and we do meet all the time, and we're working on these things. And even just meeting with that group on campus at the health science level, it was helpful because we can talk about these things."

Incentives: "They have a specific website for faculty to go to, to access their things. They can have several sessions of counseling for free, or legal advice, or advice on mortgage, just financial advice."

Relaxation techniques: "They offer sort of Zoom meditation sessions or Zoom wellness sessions. But I think in this world, we're Zoomed out, that one of the things they don't do is give us the time to do it. So that Zoom meditation time during the noon hour is one more thing we have to do."

No specific strategies: "They have no freaking clue what they're doing."

In addition, one participant was highly satisfied with the strategies employed at their institution, stating: "To be honest, as a faculty member, I really don't feel that [burned] out. I quite enjoy my job, and I feel like I am able to get stuff done."

Figure 6

Institutional Burnout Prevention Strategies – Visual Depiction of Qualitative Data
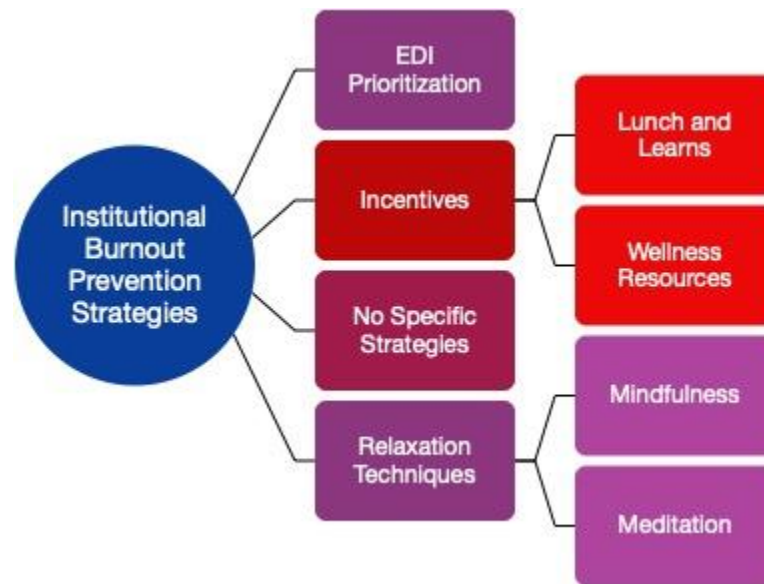
If Not, What Strategies Would You Like to See Implemented?

These U.S. URM PA educators shared strategies that they would like to see offered at the institutional level. All of their suggestions fell under the umbrella of faculty resources to include adequate staffing, faculty mentoring, formal onboarding, promotion and tenure support, mindfulness and meditation, and targeted mental health measures (see Figure 7). The interviewees related the following quotes:

Faculty resources: "So being fully staffed, I think would be a big help because then it can take some of the physical burden off you."

"Also, having some measures in place, especially how African-American people, how they look at mental health. Openly advertise it a little more and encourage it."

"I think what I would like to see implemented is more of the institution and faculty understand[ing the] need that we need to address some things like mindfulness, and meditation, and focusing on our inner selves."

Figure 7

Institutional Burnout Prevention Suggestions – Visual Depiction of Qualitative Data
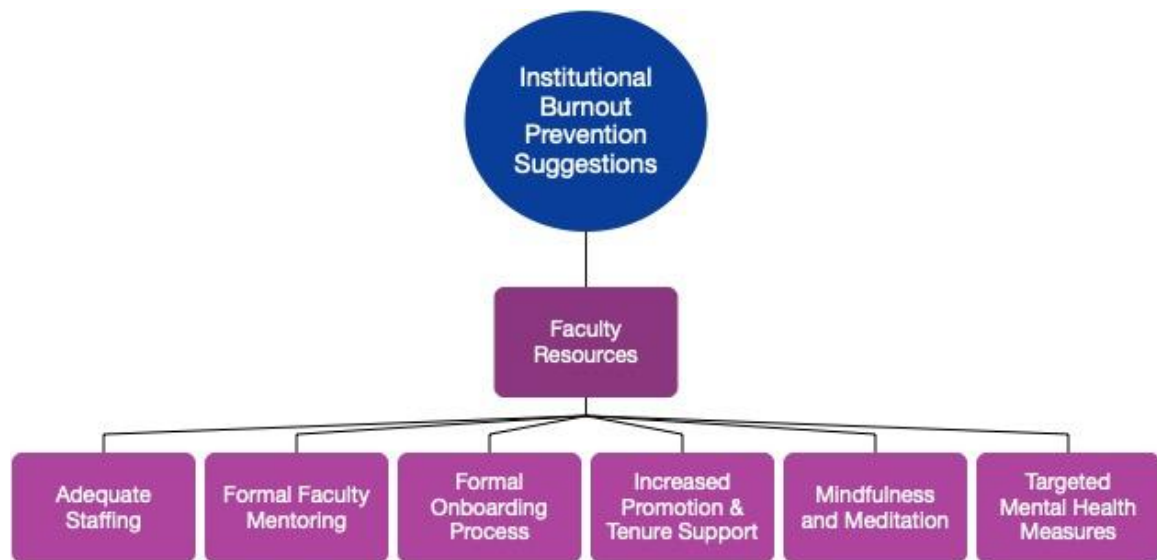
I Want You to Name a Common Work-Related Stress Trigger. If You're Comfortable, What Is Your Usual Initial Response When the Stress Trigger Occurs?

The participants shared their most commonly encountered or experienced work-related stressors (see Figure 8) and then offered their initial responses when met with the trigger (see Figure 9). The researcher used this question to assess primary and secondary appraisal among the participants. Regarding common work-related stressors, U.S. URM PA educators expressed concern about work-related stressors involving faculty and social issues:

Faculty issues: "So, easy example for me is reading my student evaluations for a course . . . [I'm] going on 12 years in PA education and [I'm] never ready for it."

Social issues: "I think a common [work] stress trigger for me is the group thing. It's the cliques that form in a meeting. And if one person says something, I know who's going to follow, but I know if someone else says something they won't get any support . . . I don't like the cliques."

Figure 8

Common Work-Related Stressors – Visual Depiction of Qualitative Data
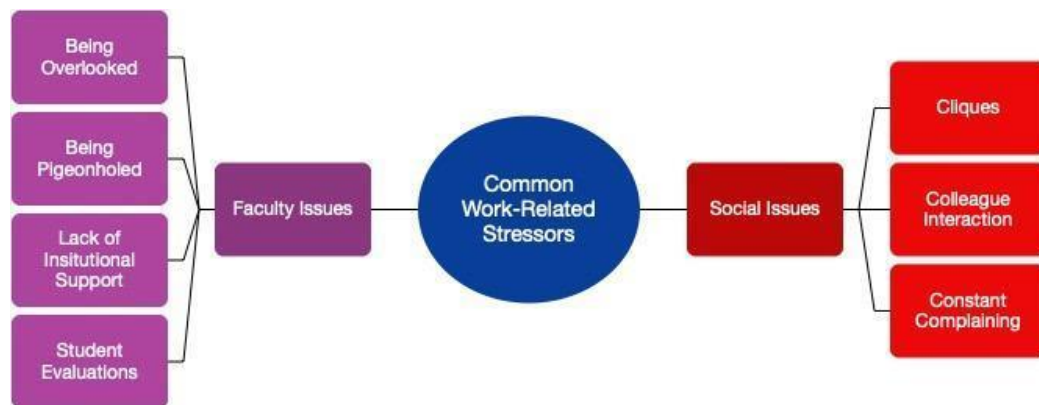
After exposure to the work-related stress triggers, participants usually had an initial emotional or physical response. Some participants related they experience a somatic response, while others reported feeling angry, annoyed, distrustful, or irritated. The respondents offered the following quotes:

Emotional response: "I'll be transparent. I do get upset and I get angry."

"The initial response, frankly, I would say it's a sense of despair because it's not just a person that's the problem, it's the system that becomes a problem."

Physical response: "I think you can see the visceral reaction. You can probably see my anxiety level, sort of my flushing. The rise of the red starts coming up in my face."

"So, once I feel like my adrenaline start[s] rushing, that's when I know it's like, 'Alright, you got to maybe take 5 minutes.'"

Figure 9

Initial Response to Work-Related Stress Triggers – Visual Depiction of Qualitative Data
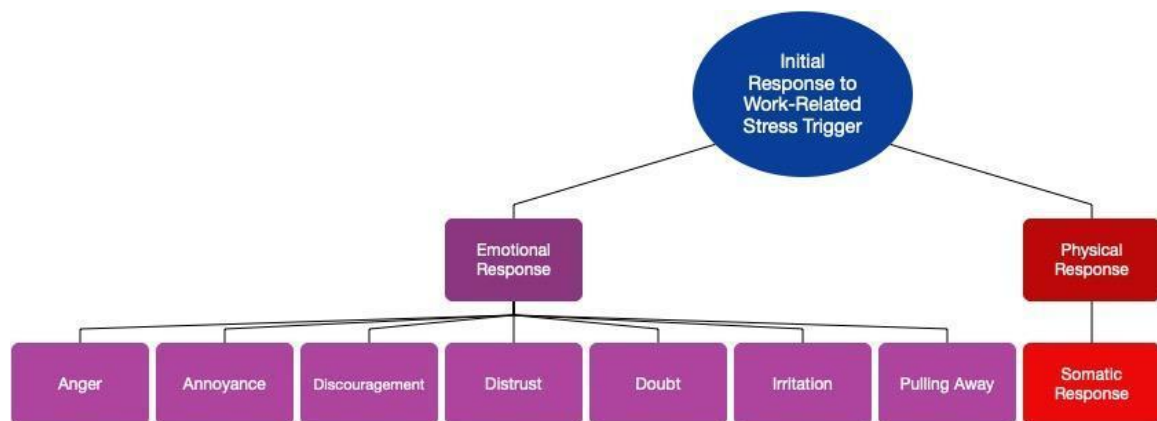
After Your Initial Response to A Stressful Situation, What Type of Coping Strategy or Strategies, If Any, Do You Usually Use to Make Yourself Feel Better? Please Explain.

The interviewees discussed coping strategies frequently used after experiencing a common work-related stress trigger. The techniques employed fall under three main categories: calming techniques, cognitive and behavioral techniques, and distancing techniques. Examples of coping strategies employed to help accomplish a sense of wellness in the target population include breathing exercises, reflective writing,

relaxation, therapy, and removing oneself from the stressor (see Figure 10). This sample of U.S. URM PA educators shared the following explanations:

Calming techniques: "At work, I have a big Lego collection in there and I always have a project going there. So, if I get a little triggered for some reason, I'll take five to 10 minutes, especially if I can't take a walk."

"I've gotten into really doing meditation and journaling, and I resisted journaling for many years and I find it to be so therapeutic. Sometimes I think in stressful situations, again, we get caught up in the emotion. So, putting it on paper, I like to write[. By] putting it on paper, gives it a space of its own and releases it from me to the paper. And, I can actually review it and read it and go, you know what, that's so interesting that happened today, or this is how you took that."

Cognitive and behavioral techniques: "I have a therapist that I see or talk to on a weekly basis because I need that for me. You should have two things, a housekeeper and a therapist, and there you go."

"I have a number of mentors that I communicate with, some that's within academics, some that's clinical, some that may be still in research. Because sometimes when you're in these situations, these stressful situations where you don't feel heard; sometimes talking to someone can kind of help remind you of some of your accomplishments when you feel like you're worthless."

Distancing techniques: "So really, one of the things that I do is I get up and breathe and take a walk. There's a Starbucks very near me."

"One of the things that always helps me is to get out of the office. So just to leave the office, go out for a little bit, maybe go and get lunch just by myself."

Figure 10

Coping Strategies – Visual Depiction of Qualitative Data
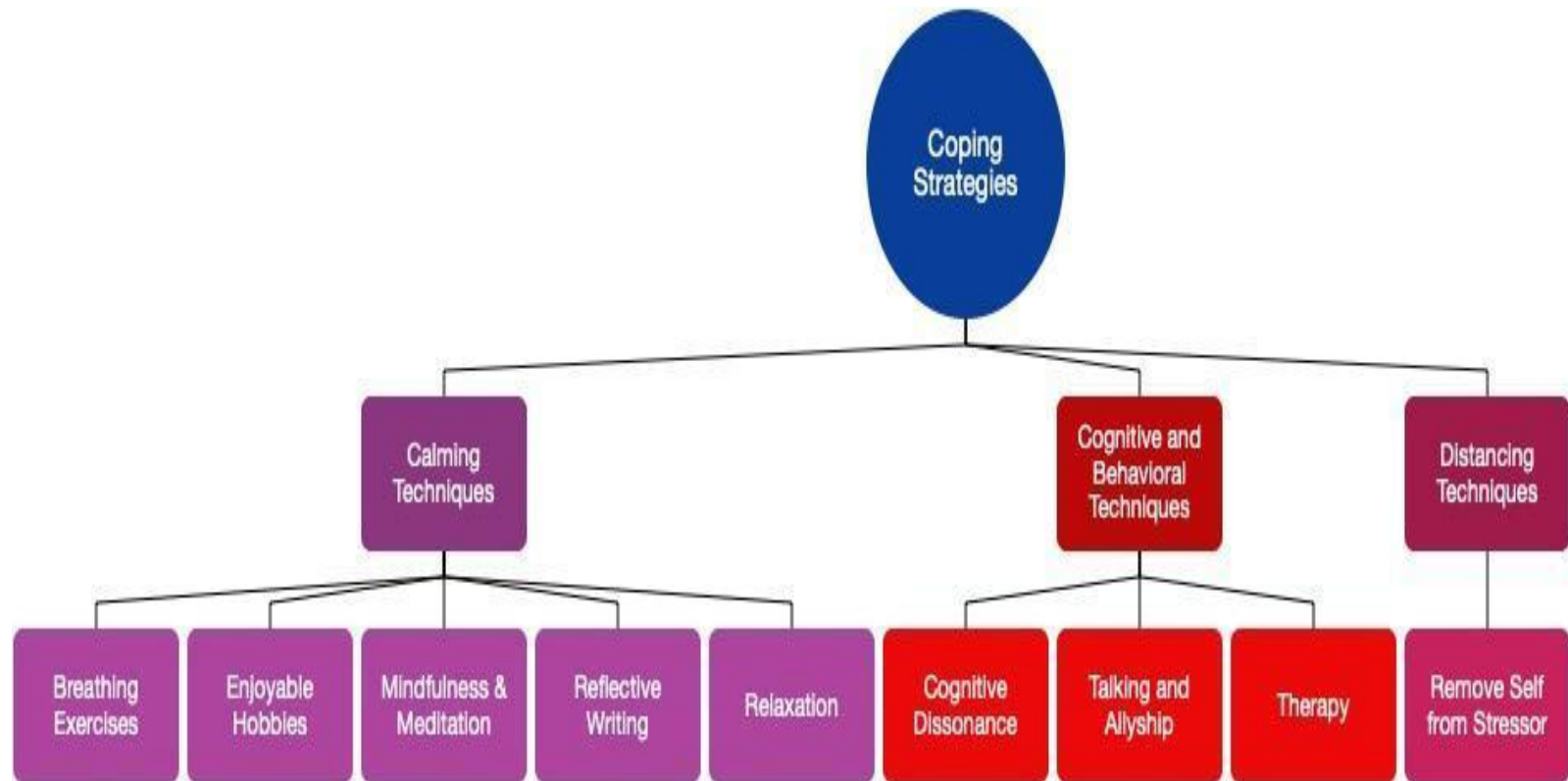
Is There Anything That You Would Like to Add About Your Experience as a URM PA Educator?

To help attain a better understanding of the target population, the researcher posed a final question that explored the experiences of U.S. URM PA educators. The experiences are characterized into three overarching categories: interpersonal experiences; intrapersonal experiences; and justice, equity, diversity, and inclusion (JEDI). From there, subthemes emerged to include isolation, minority status, work environment, impostor phenomenon, personal sense of responsibility, lack of equity in the PA profession, personal sacrifice, and wellness regarding JEDI work (see Figure 11). The interviewees shared their personal experiences through the lens of their URM status:

Interpersonal experiences: "I feel like I'm alone though, in general, until we have these big meetings with minority faculty, but you feel like you're alone for the most part, and that you want to be part of the group because you always want to belong."

"I wake up. I don't have the privilege of taking off my womanhood or taking off my Blackness. This is a lived experience for me."

"One good example is I got promoted this last year to full professor, and it was a real eye-opener. I mean, already the promotion process is very contentious, and it's very controversial, and it's an ugly process. But I went through a process really where I wrote some things that I submitted for the promotion that I thought were perfectly fine, and I still feel that way. But, I was told that I was unprofessional and that I was rude and that I was exaggerating my career. And I mean, it was horrible and it made me feel really bad .

. . I felt that I needed to not exaggerate my career, but why I needed to stress that I had met the criteria, not at 100%, at 250% level of the criteria."

"Personally, I've had good experiences at the university. I feel that I am a valued member of the university and of the program. We only have two people in our program who are underrepresented minorities, everybody else [is] not an underrepresented minority. But, I feel that I'm able to contribute positively . . . by doing things like cultural competence."

Intrapersonal experiences: "And I think then it just creates that impostor phenomenon. So, that's another thing too, my entire career as a URM PA educator [is] just mostly impostor phenomenon. I feel that way all the time. So, that's a key thing."

"And now you got the impostor syndrome thing coming. And then you have to, for me, pull back and say, wait a minute, this isn't about you."

"[It] means a lot. I mean, this position means a lot in the sense that I'm responsible for paving a path or helping [the program] pave a path. And, I want to make sure that we do it in the right way within the community because we're not as established yet, [and] given . . . the history of medical education within our community."

"But when it becomes a diversity issue, an inclusive issue, a health equity issue, it's typically one or two of us that [have] to champion that and carry that. And, I think we do it because we love it. We know it's our passion. We know it's necessary, but it also provides an undue burden, which leads to burnout, which leads to feeling undervalued and underappreciated, especially when our names are being recommended for [diversity and inclusion] things, but not for other things, right?"

JEDI: "It's still mind-boggling that we cannot and have not had some form of equity within the PA profession. That's what is very difficult about being a URM in PA education."

"To sum it up, you have to sacrifice the advantages that privileged faculty get in order to do EDI work . . . and that's specific to me because that's my charge[.] I'm the officer for this. So, I learned early on in my career that . . . this is painful, but you don't get paid to be liked."

"I really want [my colleagues] to know that you can't do DEI work or JEDI work without linking that to wellness because if I am a Black faculty, Black student, Black staff, and I am having an uncomfortable experience because of my Blackness, because of my womanhood; that is not wellness in that program. And, so, I really want our colleagues to see how this links together. This isn't, oh, wellness over here and DEI, JEDI work over there. This is entrenched together."

Figure 11

URM PA Educator Experiences – Visual Depiction of Qualitative Data
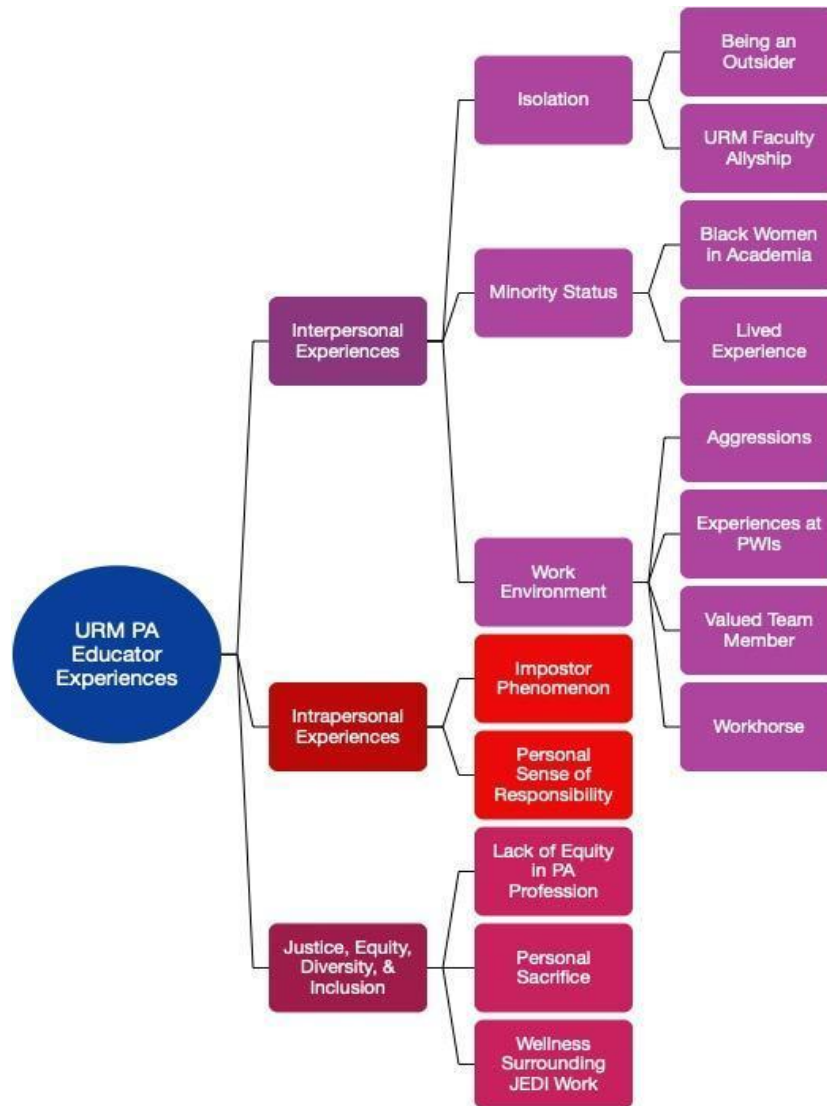
Summary

This research study employed a mixed-methods approach to evaluate if a relationship existed between EE and age, gender, self-identified race, faculty role, and "years in faculty position" demographics among U.S. URM PA educators. The researcher

also explored if these demographic variables predicted EE in the target population. Qualitative data were also gathered and analyzed regarding perception of burnout, primary and secondary appraisal to occupational stressors, and associated coping strategies.

There was no significant relationship between age, self-identified race, faculty role, and "years in faculty position" and EE score among the participants. The relationship between gender and EE was significant, demonstrating that women experience EE at higher rates than men. The overall predictive model of the demographic variables and EE score were not significant.

Regarding burnout perception, participants reported three categories of decreased satisfaction, emotional toll, and exhaustion which led to job dissatisfaction, increased feelings of sadness, EE, and the presence of physical manifestations. Prominent burnout contributors included institutional issues, work-related stressors, social isolation, and occupational pressures. Some of the influencers were inequitable practices, lack of support, the desire to fit in, lack of diversity, impostor phenomenon, and perfectionism. During the exploration of current strategies used on the programmatic level to address burnout, participants shared that their respective programs are either offering no specific programming, deploying faculty-facing activities, or assigning positive value to the faculty role by offering incentives (e.g., valuing faculty time and hosting bonding activities). These strategies are being accomplished by providing educational modules, meditation, bonding opportunities, and by being respectful of the faculty member's time. For the PA programs that do not have formal burnout prevention strategies, the URM PA

educators suggested a focus on faculty resources and workload distribution through offering a more equitable workload, multicultural training, and formal onboarding processes. Considering burnout prevention strategies employed at the institutional level, four main categories emerged: EDI prioritization, incentives, relaxation techniques, or no specific programming. All of the suggestions for institutional burnout fell under faculty resources (e.g., adequate staffing, formal mentoring, promotion and tenure support, mindfulness, and targeted mental health resources). Common work-related stress triggers surround faculty or social issues. Faculty issues included being pigeonholed, lack of institutional support, being overlooked, and review of student evaluations. Regarding social issues, cliques, colleague interactions, and constant complaining were sources of stress among the participants. Initial responses to these stress triggers were either emotional or physical and included feelings of anger, annoyance, doubt, or experiencing a somatic response. To cope with the stress, the participants employed calming, cognitive and behavioral, and/or distancing techniques. Some used breathing exercises, mindfulness, or reflective writing, while others activated their cognitive dissonance, participated in therapy, or physically removed themselves from the stressful situation. Experiences related to URM status were shared under the umbrella of the following categories: inter- and intrapersonal experiences and JEDI. Common experiences manifested as isolation, issues regarding minority status, lack of equity, and personal sacrifice. In conclusion, the results of this mixed-methods study will inform future burnout prevention interventions and research as discussed in Chapter V.

CHAPTER V

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Summary

This study employed a mixed-method research design to examine whether there is an existing relationship between the burnout subscale, EE, and demographic factors (age, gender, race, faculty role, and "years in faculty position") in U.S. URM PA educators as well as whether these demographics serve as predictors for EE. The study also explored the participants' perceptions of burnout, active contributors, and coping strategies. The MBI-ES, which is a 22-item Likert-scale survey instrument, was used to measure EE among the participants. The EE subscale (nine items) is reliable with a Cronbach alpha of 0.90 (Maslach et al., 2018). Data were imported from the PsychData digital platform into SPSS version 25 for Mac for analysis. The data were gleaned from the EE scores representative of 101 U.S. URM PA educators. Seven open-ended questions were used for the semistructured interviews. Eleven interviews were held using the Zoom platform, transcribed by Rev, and then imported into NVivo version 13 for Mac. From the data gathered, themes and subthemes were categorized under the parent node associated with the assigned question. To ensure rigor and credibility of the qualitative data, the researcher employed reflexivity, member checking, and peer debriefing. The qualitative and quantitative data supplement each other to provide a better understanding of burnout

in the study population and to inform future burnout prevention interventions and research.

Conclusions and Discussion

Quantitative Research Questions

Research Question 1: How do demographic factors (age, gender, self-identified race, faculty role, and "years in faculty position") relate to U.S. URM PA educators' Maslach Burnout Inventory (MBI) subscale score for emotional exhaustion?

Research Question 2: How do demographic factors (age, gender, self-identified race, faculty role, and "years in faculty position") predict emotional exhaustion in U.S. URM PA educators?

Demographic Factors and EE Score

Pearson's *r* correlation was used to determine the existence of a relationship between EE and age, resulting in no correlation, and a one-way ANOVA test determined no statistically significant difference between "years in faculty position" and EE. Research by Grayson and Alvarez (2008) indicated that data regarding the relationship among burnout, age, and teaching experience ("years in faculty position") have been historically incongruous through the lens of community and culture. For example, studies measuring age as a predictor for burnout have been discordant among public school educators in the United States. However, in China, teachers representing younger age demographics experience more burnout than their older counterparts (Grayson & Alvarez, 2008). These findings indicate a possible unique cultural influence or influences that interact with burnout contributors, which can be the premise of future studies. A

study exploring professional burnout in PA educators also demonstrated an inverse relationship between age and burnout, with older faculty members experiencing less EE than their younger counterparts (Forister & Blessing, 2007). These findings are also supported by Maslach et al. (2001), who found higher EE scores in employees under 30 years old. In the current study, there was no relationship between EE and age, while there was no effect between "years in faculty position" and EE. According to Maslach et al. (2001), the age demographic variable is affected by many confounders such as occupational experience (e.g., "years in faculty position") in that younger employees are at higher burnout risk than those with career longevity. A possible explanation is that older PA educators have had more time to adapt to their roles and job duties (Forister & Blessing, 2007), which can alleviate some job-related stressors. Overall, though, the results have been mixed. Marchand et al. (2018) reported that the most current findings imply a negative association between age and burnout. However, research has also suggested a bimodal relationship with increased burnout in both younger and older people, while others report elevated burnout solely in older workers (Marchand et al., 2018). PA education is usually a second career, as most PAs practice clinically before entering academia. Therefore, age is not always an indicator of the number of years spent in one's faculty position, which could possibly explain why there was no correlation between age and EE within the study population. Further research is warranted to examine the relationship between age and "years in faculty position" among PA educators.

An independent samples t-test measuring gender and EE resulted in a significant difference between EE and gender, showing that women experience EE more frequently than men. Regarding gender and burnout, the research is mixed. For example, one study supported gender as a major differentiator (Grayson & Alvarez, 2008), while another study found this demographic variable to be of little consequence as a burnout predictor (Maslach et al., 2001). According to Grayson and Alvarez (2008), studies have demonstrated higher burnout scores among men, increased burnout for women, or no differences between the two variables. Nevertheless, there have been small, consistent findings that support higher depersonalization scores among men and high exhaustion scores among women (Grayson & Alvarez, 2008; Maslach et al., 2001). In this current research study, there was a statistically significant difference between men and women regarding EE, demonstrating that women experience EE a few times monthly to once weekly compared to men experiencing EE a few times monthly. In a Canadian study, Marchand et al. (2018) found that significantly higher levels of EE were reported among women when compared to men. Similarly, among neurologists in the United States, women demonstrated higher burnout scores, exacerbated by elevated EE scores. These women physicians also reported decreased quality of life, increased fatigue, and low work/life balance (LaFever et al., 2018). Conversely, research among U.S. surgeons showed no statistically significant EE relationship to gender. In this study, male surgeons had overall higher burnout scores than their female colleagues (Lebares et al., 2018).

Studies that suggest increased EE among women as well as the current study's findings may align with socially constructed work conditions that lead to increased EE in

women. There appears to be a disparity between personal and occupational stress exposure, with men usually experiencing less stress on the job and outside of work. However, women are usually exposed to more stressful work environments compounded with work and family conflicts (Marchand et al., 2018). Female PA educators are not immune from the aforementioned social and occupational stressors. Regarding URM female PA educators, there is additional intersectionality between gender and race or ethnic minority status. Templeton et al. (2019) reported that more than 70% of female physicians recount experiences of gender discrimination, which can be compounded with assignment to an underrepresented racial or ethnic category leading to decreased well-being and increased work stress.

One-way ANOVA tests were used to determine if EE scores differed by faculty role and self-identified race. These data were not statistically significant, indicating no effect of the aforementioned demographics and EE. In the current study, stratified by race, URM PA educators experienced burnout similarly a few times per month, with Black URM PA educators exhibiting a slightly higher EE mean score (3.7) compared to other URM racial categories (3.6). Results from a study by Johnson et al. (2020) measuring EE among PA students in Virginia were somewhat similar to the researcher's findings in that Black PA students reported elevated levels of EE, and both Latina/o/x and Black PA students had higher levels of depersonalization compared to their White counterparts. However, in a study among primary care physicians, there were no statistically significant burnout differences based on race or ethnicity (Rabatin et al., 2016). Although the current study did not include White participants, studying URM

status and burnout fills a noticeable gap in the knowledge base. See Table 13 for hypothesis testing results for Research Question 2.

Demographic Factors as a Predictor for EE Score

The predictive model of demographics and EE was not significant. To the researcher's knowledge, this is the first study to examine EE in URM PA educators regarding the assigned study demographics. According to Maslach et al. (2001), gender has not been found to be a strong burnout predictor. However, in the current study, the gender coefficient was significant in the multiple regression analysis, demonstrating positive regression of EE scores from men to women. In addition, Forister and Blessing (2007) suggested that the quantitative factors (number of students, support staff, age, years as faculty, teaching time, administrative time, clinical practice, and faculty development) measured in their study did not adequately predict burnout. Moreover, Maslach et al. and Forister and Blessing mentioned the need to explore qualitative burnout measures, which was accomplished with the current research study. Hypothesis action for Question 3 is reflected in Table 13.

Table 13

Hypotheses Summary – Rejected or Not Rejected

Research Question	Hypothesis	Action
1	There is no relationship between demographic factors and their MBI subscale score for emotional exhaustion.	
	Age	
	Gender	Not rejected
	Self-identified race	**Rejected**
	Faculty role	Not rejected
	"Years in faculty position"	Not rejected
		Not rejected
2	Demographic factors do not predict emotional exhaustion in U.S. URM PA educators.	
	Overall predictive model	Not rejected

Qualitative Research Question

Research Question 3: How do underrepresented minority (URM) physician

assistant (PA) educators in the United States perceive burnout?

a. What, if anything, do URM PA educators in the United States describe as

contributing aspects to burnout?

b. What burnout coping strategies, if any, do URM PA educators in the United

States employ?

Burnout Perception

The first open-ended question asked, "What does burnout mean to you?" Three

categories emerged regarding the perception of burnout among the interviewees:

decreased satisfaction, emotional toll, and exhaustion. The participants related sadness,

stress, decreased job satisfaction, EE, fatigue, overextending oneself, and physical

symptoms when considering the definition and perception of burnout. These findings align with the burnout literature. For example, Schaufeli et al. (2001) reported burnout as overextension, EE, and physical manifestation such as fatigue and depressive symptoms. Similarly, Maslach and Leiter's (2008) study referred to burnout in the context of feelings of overextension leading to the depletion of personal resources, both emotional and physical. Exhaustion is a recurring theme and represents the major stressor associated with burnout (Maslach et al., 2001). As educators, the EE component manifests when physical and emotional resources are unable to be deployed secondary to immense experiences of stress and fatigue (Grayson & Alvarez, 2008), which was also reflected in the qualitative findings of this study.

Burnout Contributors

The researcher gathered information on burnout contributors by posing the question, "What, if anything, contributes to burnout for you?" Participants revealed contributors related to the key themes of institutional issues, work-related stressors, social isolation, and/or occupational pressures. These burnout contributors manifest in various ways such as lack of support, inequitable practices, increased workload, promotion and tenure issues, employment at a predominately White institution, desire to please others and fit in, isolation due to gender, lack of diversity, and competing passions (e.g., DEI work and didactic instruction, perfectionism and impostorism, and duty to serve as a role model for URM students). These results align with findings from LeLacheur et al. (2019), who studied retention factors associated with URM PA educators in the United States. These educators reported a sense of isolation and increased level of responsibility

regarding committee work and serving as advisors to URM students and pre-PA applicants. A lack of recognition of diversity was also reflected as URM PA educators' DEI work was often assigned less value or simply overlooked in the promotion and tenure process. In addition, duplicity regarding diversity and inclusion also existed, which usually manifested as a discrepancy between action and the mission espoused by the organization (LeLacheur et al., 2019).

Increased job demands were identified as another major stressor in the current study as participants reported lack of support, increased workload, and multiple duties as burnout contributors. In support of these findings, Awa et al. (2010) related that when chronic occupational stress is coupled with increased job demands, one is more apt to develop burnout symptoms. In addition, lack of support regarding career growth and advancement along with lack of scholarly collaboration can lead to isolation; and these contributors along with decreased shared decision-making have been associated with burnout (Gómez-Gascón et al., 2013; Maslach et al., 2001). Furthermore, some of the women participants in the current study also related isolation secondary to the intersection of race and gender. The literature corroborates this finding in that underrepresented minority women medical educators reported burnout at 35% as compared to URM men at 21% (Dandar et al., 2019). Also, according to the AAPA Task Force on PA Burnout (2020), women PAs ranked work stress as more impactful than their male counterparts. In essence, burnout contributors can lead to EE, which can manifest as disengagement.

Coping Strategies

To explore coping strategies employed by U.S. URM PA educators, the researcher posed the question: "After your initial response to a stressful situation, what type of coping strategy or strategies, if any, do you usually use to make yourself feel better? Please explain." In order to answer this question, the participants had to reflect on their primary appraisal of the stressful situation to then determine secondary appraisal. This process of stress appraisal leads to the deployment of coping strategies by assigning value to the stress trigger and its associated facets and how it informs well-being (Lazarus & Folkman, 1984). Stress and coping are not finite. There is no optimal or most appropriate coping strategy. Instead, the coping strategy is chosen based on its personal efficacy given the initial stress encounter and for the long-term effect (Lazarus & Folkman, 1984). Three umbrella terms emerged from participant responses: calming techniques, cognitive and behavioral techniques, and distancing techniques. Participants utilized breathing exercises, enjoyable hobbies, mindfulness/meditation, reflective writing, relaxation, cognitive dissonance, talking/allyship, therapy, and removing oneself from stressful situations to cope with burnout stressors. These cognitive behavior coping strategies are deployed at the individual level and are also utilized in individual-level burnout interventions, resulting in short-term benefits (Awa et al., 2010). These techniques along with relaxation-focused interventions are believed to lessen physiological arousal, which can lead to decreased burnout symptomatology (Maricuțoiu et al., 2016). Nevertheless, outcomes from studies incorporating these techniques have yielded mixed results regarding their efficacy in decreasing burnout.

Overall, the coping strategies revealed through the current study included participants distancing themselves from the chronic occupational stressor (e.g., participating in enjoyable activities and hobbies). In support of these distancing strategies, the AAPA Task Force on PA Burnout (2020) recommended abstaining from working after hours and enjoying personal time and interests instead. It is important to note that the appraisal of stress and subsequent deployment of coping strategies does not lead to the total command of stress triggers. And, according to Lazarus and Folkman (1984), "Coping should not be equated with mastery over the environment; many sources of stress cannot be mastered, and effective coping under these conditions is that which allows the person to tolerate, minimize, accept, or ignore what cannot be mastered" (p. 140). Therefore, the data gathered in the current study can be used to assist in the development of programs and strategies to address occupational stress leading to burnout instead of a complete fix resulting in the eradication of burnout.

Triangulation of Results

The quantitative data demonstrated a significant difference between EE score and gender; no correlation between EE and age; and nonsignificant differences between EE and race, EE, "years in faculty position," and faculty role, and demographics as a predictor for EE. These findings are supplemented by the qualitative data with the interviewees relating social isolation secondary to gender and lack of diversity as burnout contributors. Regarding URM PA educator experiences, the participants related their minority status, URM faculty allyship, and being a Black woman in academia as

important topics for consideration. These triangulated data can be used to inform future burnout health interventions and research.

Implications

To the researcher's knowledge, this is the first study exploring perceived burnout among U.S. URM PA educators. The results of this study have potentially positive implications on health education practice and PA education by filling glaring gaps in the literature. There are also opportunities to use the data to develop burnout prevention health education interventions, which would be beneficial to medical education. For example, Dandar et al. (2019) established the need for more research and health interventions relating to burnout in academic medicine. The current study presents an opportunity to expand both research and practice to incorporate other priority populations to effect positive change regarding burnout.

Health Educator Implications

The National Commission for Health Education Credentialing's (NCHEC) eight areas of responsibility for health education specialists should be considered when developing future burnout prevention health education interventions for U.S. URM PA educators. The responsibilities serve as the foundation of health education by setting far-reaching competencies and sub-competencies that inform multifaceted functions of health education specialists (NCHEC, 2020). These responsibilities include Area I: Assessment of Needs and Capacity; Area II: Planning; Area III: Implementation; Area IV: Evaluation and Research; Area V: Advocacy; Area VI: Communication; Area VII: Leadership and Management; and Area VIII: Ethics and Professionalism. Areas I, II, IV, V, VI, and VIII

are applicable to this study and should be considered and expounded upon with the other areas of responsibility when developing future burnout interventions.

Area I: Assessment of Needs and Capacity

Using the current research as the foundation for assessing the needs for a burnout prevention intervention in the target population, the health education specialist should align the intervention's purpose with the interests and needs of the priority population. Identifying and partnering with stakeholders is paramount. In this case, the suggested stakeholders include the URM PA educator, their host academic institution, and PAEA. Data collection helps to inform and recognize relevant needs of the population. For example, the health educator can use the primary data from the current study (as well as others) to help support the need for a burnout prevention health intervention. The current study reflects sound research methods, which lends further credibility to intervention development. Another tool for supporting the target population's need is robust review of the literature, which was also included in the current study. Together, the literature review and supporting data can be synthesized by health educators to better inform the planning of burnout interventions.

Area II: Planning

The health educator should partner with the priority population and other key stakeholders in the planning process. For the current study, the qualitative data consisted of themes gleaned from semistructured interviews. This activity provided an opportunity for the priority population to offer suggestions for burnout prevention strategies on both the program and institutional levels. The health educator can use this information to

create and launch a pilot burnout prevention intervention. The findings from the pilot

intervention can provide the key information for future implementation and

sustainability, particularly on a broader scale.

Area IV: Evaluation and Research

The health educator can use the current study as a foundation to develop a pilot

research study regarding burnout prevention (as mentioned in the previous section). The

pilot study can further determine the feasibility of a larger scale burnout prevention

intervention focused solely on URM PA educators or on a broader scale to encompass

more health professions specialties and/or participant demographics (Leon et al., 2011).

The health educator can also use the data collected from the pilot study to inform

recruitment procedures, optimize evaluation procedures, and strategically implement a

burnout prevention intervention. The dissemination of these findings can be far-reaching

by advancing future theory-based burnout prevention research among URM and other

academic medicine educators.

Area V: Advocacy

Health educators play a pivotal role in advocating for their target communities.

Using the current study, advocacy can be focused on processes and actions that will help

address burnout in URM PA educators. It is important to determine and leverage the

burnout contributors in order to deploy targeted advocacy strategies. These targeted

strategies allow the health educators to align with the available evidence to gather the

necessary support to achieve the desired health behavior changes and health outcomes.

Advocacy also allows the health educator to enlist and partner with the necessary

stakeholders to robustly and broadly address the health issue (e.g., burnout in URM PA educators).

Area VI. Communication

It is necessary to communicate health education research, outcomes, solutions, and intervention opportunities. The findings of the current study can be disseminated through oral presentations and manuscripts. This type of communication can serve as a call-to-action for health educators to conduct further research pertaining to burnout in URM PA educators and other health professionals. The study results can also be used to inform the development and deployment of burnout prevention interventions. Accordingly, the health educator should consider the audiences to which they will be communicating and adjust messaging for greater uptake and effectiveness.

Area VIII: Ethics and Professionalism

Health educators must practice in an ethical manner. The current study was conducted in accordance with sound research ethical principles to help advance health equity among the target population. Ethics and professionalism are important aspects for the health education practice, which engenders trust for the health educator as an authority figure while promoting the profession to the public. The researcher's study population can be classified as a vulnerable community secondary to their underrepresented status. The topic is also one that involves emotion and well-being; therefore, adhering to ethical and professional practices is paramount. Gardner (2014) stated that health educators must determine the "good" that will be achieved by the study. It is important to achieve beneficial results while trying to avoid causing harm. The

health educator should also determine the ethical distribution of benefits among the target population, especially an already marginalized community (Gardner, 2014). Regarding the current study and future research based on the study results, health educators should ensure both professional and ethical practices for reaching the desired "good" and for subsequent distribution of the benefits (Gardner, 2014).

Physician Assistant Education Implications

The primary purpose of the current study was to examine specific variables to better inform a burnout prevention intervention for U.S. URM PA educators. The study aligns with PAEA's vision of providing health for everyone as diversity and inclusion are key strategies of PAEA's strategic plan (PAEA, 2017). The current study also allows PAEA and its member programs to consider unique issues regarding recruitment and retention of URM PA faculty, which calls for strategic engagement to better understand the needs of this population. PAEA (2017) prioritizes the demonstration of identity diversity and inclusive practices in PA education; therefore, the findings of this study can inform the development of targeted burnout prevention health interventions across the nation.

Institutions and programs can meet accreditation standards related to diversity and inclusion and wellness by prioritizing burnout prevention among URM PA educators. ARC-PA (2019) Standard A1.11 states, "The sponsoring institution *must* demonstrate its commitment to student, faculty and staff *diversity* and *inclusion* by: . . . supporting the program in implementing retention strategies, and making available, resources which promote *diversity* and *inclusion*" (p. 7). By developing and supporting burnout

interventions for URM PA educators, institutions and programs are promoting diversity and inclusive practices. Furthermore, ARC-PA (2019) Standard B2.20 includes that "The curriculum *must* include instruction about provider *personal wellness* including prevention of: a) impairment and b) burnout" (p. 16). By prioritizing and addressing personal wellness to include burnout allows the programs to serve as exemplars since these topics are addressed in their teachings. Interventions related to burnout prevention and health education can lead to increased engagement and job satisfaction, which, in turn, can enhance job retention rates. There are existing burnout prevention interventions (individual and/or organizational) that can be used to help develop and promote wellness strategies for uptake in PA education. Zolnierczyk-Zreda (2005) offered an individual-level intervention to reduce burnout in teachers. The intervention spanned 12 hours over a 2-day period and involved mindfulness, time management, goal setting, negotiations, and social support techniques to help improve coping, avoid workload stress, increase job control, and develop assertiveness. The intervention measured 10 variables. However, only five showed a significant effect to include "intellectual demands, overload and role conflict, behavio[ral] control, emotional exhaustion and intensity of somatic complaints" (Zolnierczyk-Zreda, 2005, p. 426). Emotional exhaustion was the only variable that had a significant reduction, which aligns with the current study as EE was the dependent variable. Emotional exhaustion is an important variable to measure as previous research supports EE as the easiest burnout symptom to reduce with targeted interventions (Zolnierczyk-Zreda, 2005).

In addition to being teachers, PA educators are also health care providers. Therefore, it is also beneficial to discuss an intervention focusing on clinicians. Linzer et al. (2015) designed an organizational-level burnout prevention intervention deployed at three study sites. The team recruited primary care providers (general internists, family medicine physicians, nurse practitioners, and PAs) to assess if knowledge of workplace clinician perceptions would prompt the necessary conversations that lead to focused interventions. Thirty-four clinics participated and were randomized into a control group or an intervention group. Baseline data were measured pre- and post-intervention to include the managers responding to questions about clinic structure and policy. Additionally, clinicians responded to questions about stress, EE, and the organizational culture (Linzer et al., 2015). Based on these data, the researchers provided the intervention sites a two-page summary document for which they could use to come up with a site-specific intervention. The interventions fell into three categories: "1) improving communication especially among clinicians and staff; 2) changes in workflow; and 3) [quality improvement] projects addressing clinician concerns" (Linzer et al., 2015, p. 1106). The interventions concluded within 12 to 18 months with a decrease in burnout (41.4% to 33.8%) at intervention sites compared to a 30.1% to 32.8% burnout increase at control sites (Linzer et al., 2015).

PA education can represent a combination or modification of existing evidence-based interventions such as those mentioned above to address URM populations or encompass the entire workforce. The available literature supports combination (individual- and organizational-level) interventions as they offer benefits for upward to

one year. The interventions should also be supplemented with refresher training (Awa et al., 2010). Figure 12 offers a schematic for planning burnout prevention interventions in PA education and in the larger realm of health professions, which can be catered to the population of interest.

Figure 12

Sample Burnout Prevention Intervention Schematic
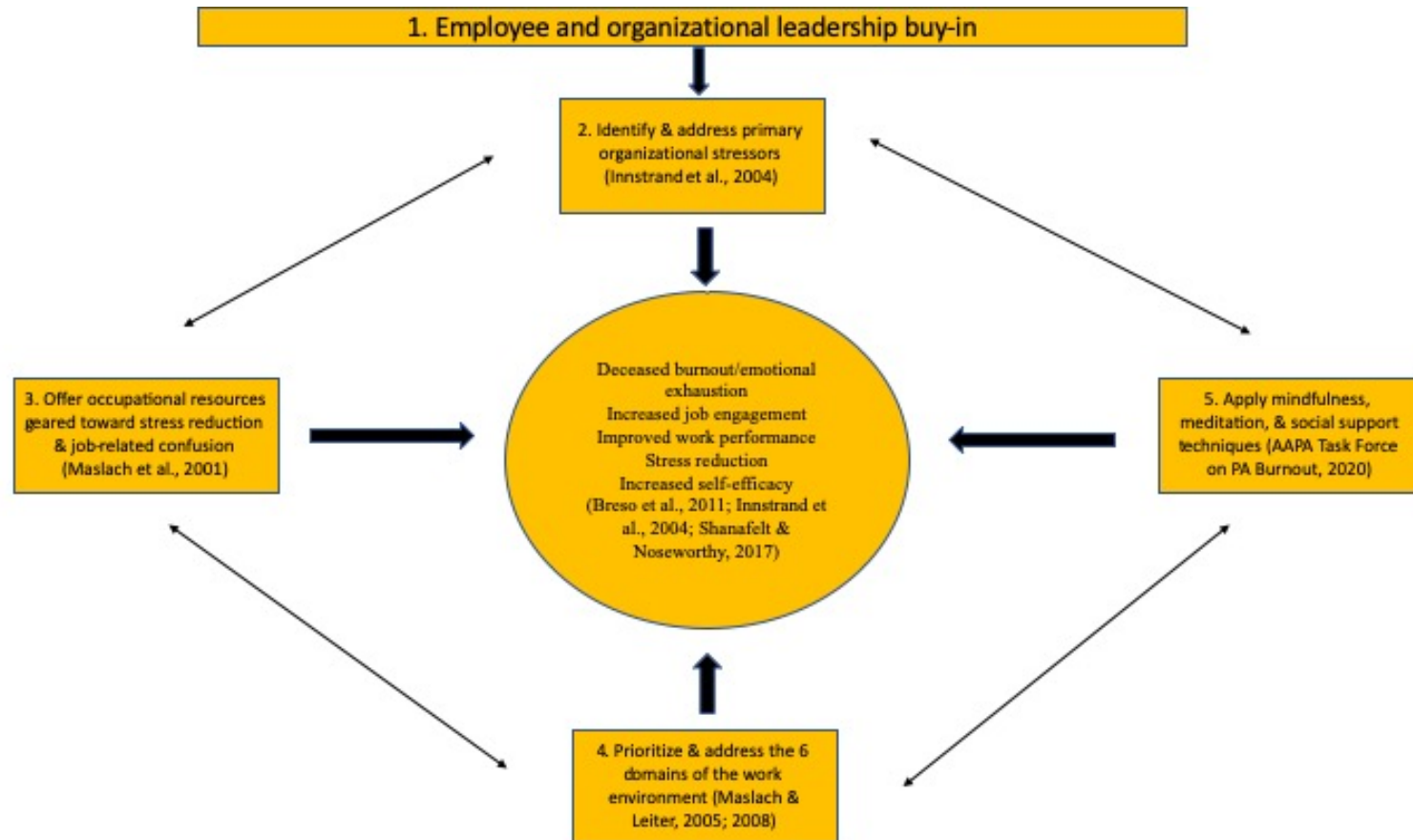
Note. 6 domains of the work environment: values, fairness, community, reward, control, workload (Maslach & Leiter 2005; 2008)

Limitations

There were several limitations associated with the current study. Gathering race demographics can be problematic as it is a social construct. For this study, the researcher used the racial categories that were included in the PAEA surveys, which did not have a classification for Latina/o/x. Latina/o/x is not a race; therefore, these participants selected the White race. The researcher relied on the participants' agreeing with the inclusion criteria and definition of URM included in the informed consent, which inferred that participants self-identifying as White were actually Latina/o/x. In the future, it would be important to list the category as White Latina/o/x to offer participants more precise selection categories. For more inclusivity, it may be beneficial to allow the participant to write in their self-identified race. Additionally, the quantitative data collection period was short – approximately 3 weeks. In the future, extending the quantitative data collection period will possibly yield a larger sample size and allow for more robust data analyses and generalizability. In addition, the qualitative data was more representative of views expressed by participants from the South and West, thereby yielding less insight from participants residing in the Midwest and Northeast. These disparate numbers can possibly affect the generalizability of the qualitative results.

Strengths

In spite of the limitations, this study also possessed important strengths. For example, the study participants for both the quantitative and qualitative components of the study spanned the continental United States and also included Alaska and Hawaii. This nationwide representation aids in supporting the argument for generalizability. The

survey sample size ($n = 101$) also exceeded the calculated sample size needed based on a

survey data error of 4% ($n = 94$). The survey response rate was 44%, which exceeds the

overall 35% response rate found by Cunningham et al. (2015), who explored online

survey response rates among physician specialists. Lastly, to ensure credibility and

robustness of findings, the researcher used member checking and peer debriefing during

the coding process of the qualitative data.

Recommendations Informing a Burnout Health Education Intervention

These recommendations for future burnout health education interventions are

informed by the literature and the findings gleaned from the current study. The researcher

asked supplemental semistructured interview questions (3, 4, 5, 7) to assess primary and

secondary stress appraisal as well as to identify the needs of the priority population.

Recommendations are offered below to include the broader PA education, academic

medicine, and URM PA educator communities:

1. When planning the burnout prevention intervention, the health educator

   should seek buy-in from the organizational leadership and the priority

   population (Innstrand et al., 2004; NCHEC, 2020). The planning process is a

   collaborative one to include departmental leadership and employees in

   identifying the shared direction of the intervention, which leads to

   organizational change regarding burnout (Shanafelt & Noseworthy, 2017).

2. Organizations should address the identified burnout contributors. This practice

   lessens the effects of burnout by creating a supportive environment,

implementing equitable practices, and aligning around shared values (Maslach et al., 2001; Maslach & Leiter, 2008).

3. Combination interventions that include both the individual and organizational levels should be employed. By using a combination intervention approach, better results regarding psychological distress are achieved (Margaret et al., 2018). This approach aligns with the ecological framework for health behaviors in that both the individual and environmental levels are engaged in order to achieve positive health behavior change (Sallis & Owen, 2015).

4. Explore and address both individual and organizational burnout contributors in order to offer appropriate coping strategies. Examples of individual burnout contributors for the study population included desire to please, impostor phenomenon, perfectionism, and competing passions. Organizational burnout contributors include lack of support, inequitable practices, workload distribution, and promotion and tenure.

5. Prioritize the use of primary intervention strategies. This approach allows the health educator to aid the participants in addressing the root causes of burnout stressors by directly addressing organizational factors (Siu et al., 2014).

6. Use secondary intervention to address the individual burnout contributors by offering coping strategies such as training in stress and coping, post-incident debriefing, anger management, and self-healing techniques (Siu et al., 2014). These types of interventions offer the secondary appraisal tools needed for

deployment of coping strategies after the initial threat or demand is activated during primary appraisal (Siu et al., 2014).

7. Design the burnout prevention intervention to employ problem-focused coping strategies to help foster psychological safety among U.S. URM PA educators as they navigate their respective organizations and institutions (Grandey et al., 2012; Parker et al., 2012).

8. The burnout prevention intervention should address the six domains of the work environment in its approach. These six domains are workload, control, reward (incentives in study population), community, fairness (equity in study population), and values (Leiter & Maslach, 2005; Maslach & Leiter, 2008).

9. The end goal of the combined individual- and organizational-level burnout prevention intervention is increased job engagement (Maslach et al., 2001). The positive changes that result from these types of interventions last approximately 1 year; therefore, health educators should offer annual refresher sessions for outcome sustainability (Awa et al., 2010).

10. As gleaned from the current study's data, sample topics for a burnout health education intervention for U.S. URM PA educators, which can also be catered to include a broader audience, include:

    a. reflection/open sharing/creating a brave space regarding experiences as a URM PA educator;

    b. defining burnout in terms of decreased satisfaction, emotional toll, and exhaustion;

c. discussing burnout contributors (e.g., institutional issues, work-related stressors, social isolation, and occupational pressures);

d. discussing common work-related stressors to address faculty and social issues;

e. acknowledging common responses to stress triggers and approaching discussion in terms of primary and secondary appraisal;

f. offering coping strategies to include calming, cognitive/behavioral, and distancing techniques;

g. and deploying possible organizational strategies aligning with the six domains of the work environment to address burnout among the priority population (e.g., workload distribution and/or offering targeted faculty resources).

Future Research Opportunities

Future research regarding burnout prevention can be more inclusive of the health professions to include more direct patient care health professionals such as mental health providers, medical doctors, registered nurses and nurse practitioners, certified nurse midwives, and allied health professionals (e.g., emergency medical service [EMS] providers, physical therapists). For example, a study assessing burnout among PAs, physicians, nurse practitioners, EMS providers, nurses, and physical therapists in rural West Virginia found that physicians reported higher incidence of burnout followed by EMS providers and nurses (Bethea et al., 2020). Of this study population, only 34.9% were aware of available burnout prevention interventions for health professionals.

However, approximately half of the respondents were open to participating in such an intervention (Bethea et al., 2020). In addition, mental health professionals have high levels of EE and low personal accomplishment accompanied by a moderate level of depersonalization (Tsai et al., 2020). Tsai et al. (2020) measured job burnout among mental health professionals in a Veterans Affairs hospital in Connecticut and found that the participants experienced moderate levels of EE. When compared to published scores of other health providers, the EE scores of the mental health professionals were significantly lower than registered nurses, physical therapists, and family physicians. The previously discussed studies support the existing need for further research encompassing multiple types of providers. The data gathered from this type of research can allow a better understanding of how to address burnout across the interprofessional medical team, better understand the differing rates of EE among health professions, and lead to the development of inclusive health education interventions.

Burnout has been labeled as a public health crisis in healthcare. One of the main contributors to burnout symptoms involves the use of the electronic health record (EHR) as providers spend an average of 6 hours during the workday interfacing with EHR systems that are often cumbersome (Schulte & Fry, 2019). Studies have shown that physician EHR users in the United States reported low satisfaction scores and increased incidence of burnout. Harris et al. (2018) studied the association between EHR-related stress and burnout among advanced practice registered nurses (APRNs) in the United States and found that burnout symptoms were more prevalent among APRN EHR users compared to those who did not utilize an EHR system. A systematic review by Yan et al.

(2021) supported the need for more research evaluating the relationship between direct patient care provider burnout and EHR usage and suggested the prioritization of assessing possible burnout contributors such as negative attitudes toward EHRs, inadequate time for documentation, and exorbitant amounts of inbox messages. Furthermore, the propensity for providers to experience burnout symptoms secondary to EHR usage is an organizational issue that can be resolved with targeted interventions due to its multilevel effects. Robichaux et al. (2019) ". . . identified that EHR documentation burden and associated negative effects on the patient-provider relationship contribute to provider moral distress and burnout across the healthcare disciplines, resulting in turnover or leaving the profession" (p. 201). Despite these findings, there is still limited data regarding consistent EHR utilization as a possible burnout contributor among providers. To address this gap, future research is warranted to study the relationship between burnout and EHR utilization among healthcare providers, including APRNs and PAs. In turn, data gathered from this type of research can help inform future burnout prevention health interventions to enhance well-being among healthcare providers.

Another opportunity is to gather data measuring perceived burnout among the majority population (White, non-Latina/o/x race) in the PA profession and/or other health professions for comparison purposes with URM medical educators. For the current study, the researcher used the EE score for data analysis and also gathered data regarding the personal accomplishment and depersonalization burnout subscales among the study population (URM PA educators). Although EE is the most widely used measure of burnout, low levels of personal accomplishment and moderate to high levels of

depersonalization further exacerbate occupational stress (Maslach & Jackson, 1981; Maslach et al., 2018). Depersonalization (cynicism is used interchangeably) encompasses the negative feelings and attitudes toward one's clients (e.g., patients or students). Feelings of depersonalization are related to experiences of EE (Maslach & Jackson, 1981). The depersonalization scale of the MBI-ES measures "an unfeeling and impersonal response toward students" (Maslach et al., 2018). The personal accomplishment subscale is a decreased self-evaluation of oneself and one's accomplishments leading to feeling unhappy and dissatisfied (Maslach & Jackson, 1981). On the MBI-ES, the personal accomplishment scale "assesses feelings of competence and successful achievement in one's work with students" (Maslach et al., 2018). Future research can use these subscale scores independently to determine if there is a relationship between demographics and depersonalization or personal accomplishment. There is also an opportunity to perform data analysis on all three burnout subscales in the target population. The information gathered from such research will allow for a deeper understanding of burnout across all three subscales, their interaction, and possibly inform more robust burnout prevention interventions. Following a power analysis, the data extrapolated from the current study can possibly be stratified across the four U.S. regions to determine if there is a statistically significant difference in EE (or in combination with depersonalization and personal achievement) scores dependent upon location.

Other future research opportunities involve studying the relationships between grit, resilience, and burnout among PAs and PA educators along with other health professionals. Data can be used to develop future health interventions designed to foster

grit and resilience. Resilience is the ability to cope with stress during trying times by leveraging intrinsic protective qualities (Card, 2018). Grit is sustained effort employing personal passion and perseverance skills to overcome obstacles, challenges, and adversity. Grit is a particularly critical asset as it allows the person to thrive over extended periods of time (Shakir et al., 2020). Among U.S. neurosurgery residents, Shakir et al. (2020) demonstrated "an inverse relationship between grit/resilience and burnout, such that higher levels of grit and resilience are correlated with lower levels of burnout" (p. e231). This study demonstrated that as social and personal stressors increased, so did burnout levels, which also manifested as lower levels of grit and resilience. Therefore, future research is warranted to further identify and investigate factors that bolster resilience and grit and reduce burnout. When planning such research or health interventions among the target population, the health educator should focus on systemic improvements and not on individuals. Resilience training on the individual level without acknowledging systemic issues may lead to harm as this practice inadvertently labels the individual as the problem (Card, 2018). With this consideration in mind, there is a need for evidence-based institutional quality improvement practices and prevention interventions to help alleviate burnout contributors and increase grit and resilience among health professionals and academic medicine faculty.

Also, health behavior theories and models can be explored for fit in the development of interventions. Three examples of possible theoretical frameworks that align with future burnout prevention interventions include ecological models, social cognitive theory (SCT), and the transactional model of stress and coping (TMSC). The

ecological model is a good fit secondary to the proposed burnout prevention interventions covering the individual and organizational levels. Ecological models consider the individual, environmental, and policy levels to help achieve and maintain health behavior change (Sallis & Owen, 2015). Ecological models are widely accepted frameworks "for conceptualizing multiple levels of determinants of health behaviors, and they are used widely as guides for the design of comprehensive multilevel interactions" (Sallis & Owen, 2015, p. 47). For example, the Centers for Disease Control and Prevention (CDC, 2019) uses the social-ecological model (SEM) as a framework for violence prevention where they consider the interactions between individual, relationship, community, and societal levels to understand and prevent violent acts. The SEM is important in health promotion and education interventions because it allows health education/promotion professionals to simultaneously work across multiple levels; and, compared to other single interventions, this model leads to prevention sustainability (CDC, 2019).

SCT also considers multiple levels. Created in 1986 by Albert Bandura, this theory has been widely used in health promotion practice due to its consideration of individual and environmental factors (LaMonte, 2019). The SCT consists of five constructs (reciprocal determinism, behavioral capability, observational learning, reinforcements, expectations) originating as a part of social learning theory, plus the additional construct of self-efficacy. These constructs work together in a dynamic fashion with consideration of person, external environment, and associated behavior. A notable construct of the SCT is self-efficacy, which serves as a dynamic contributor to health behavior change when incorporated into theory-based interventions. Self-efficacy is the

belief that individuals exert a certain level of control over their subscribed health

behaviors based on their level of confidence in achieving behavior change (Bandura,

2004; LaMonte, 2019). Self-efficacy has been shown to increase in mastery situations

and modeling (Linke et al., 2013), which is essential to burnout prevention and/or

reduction. In addition, self-efficacy is essential for successfully overcoming challenges

and obstacles such as stress and burnout.

As burnout is classified as occupational stress, the TMSC can also be considered

for fit. This theoretical framework evaluates the processes of coping and stress based on

associated triggers and experiences. An individual assesses stressful situations through

primary and secondary appraisal and then assigns the necessary coping skills needed for

self-regulation and psychological well-being (Lazarus & Folkman, 1984; Wethington et

al., 2015). The TMSC employs five concepts (primary appraisal, secondary appraisal,

coping efforts, adaptation, dispositional coping styles) that describe processes for

decreasing stress and initiating optimism, engage in benefit finding, and/or seeking

information to navigate stressful situations. Stress and burnout also need to be considered

within the context of the sociopolitical environment. As the current study population is

composed of URM PA educators, the turmoil and associated consequences of national

racial unrest can influence stress and burnout among these individuals. For example,

racism and discrimination have direct and indirect effects on health, often leading to

health disparities in the affected population (Wethington et al., 2015). According to

Wethington et al. (2015), "The Transactional Model predicts that racism and

discrimination could affect stress and coping at multiple levels, [and] may also directly

affect health by acting as a stressor" (p. 234), thereby leading to negative health outcomes.

Overall, these theoretical frameworks can be used independently or in concert with each other to help individuals achieve desired health behavior changes linked with stress and burnout. Health educators can use the findings of the current study to develop, implement, and evaluate a pilot study focused on a burnout prevention health intervention among U.S. URM PA educators. Findings from this type of pilot study can then be used to design and implement burnout health interventions for a larger sample of U.S. URM PA educators and as well as other medical professionals. Lastly, future research can assess the intersection of burnout and the COVID-19 pandemic and examine whether there are any relationships between the two. The data gleaned from this type of subsequent research will be useful for the development of burnout prevention and worksite wellness programs. For example, in a national study measuring the prevalence and correlation of stress and burnout among health professions amid the COVID-19 pandemic, women reported higher levels of burnout. Stratified by professions, allied health professionals (speech therapists, occupational therapists, and social workers) had the highest burnout rates (Prasad et al., 2021). These findings support the aforementioned need for burnout prevention interventions encompassing the totality of health professions. Studying burnout with consideration of the COVID-19 pandemic is needed secondary to unprecedented, unique challenges experienced by health care providers, which have led to increased incidences of mental health issues. Along with the providers, the health systems are also stressed due to the national lack of epidemic preparedness and pressures

to treat the sick and dying in unexpected quantities (Restauri & Sheridan, 2020). These organizational ills can flow downstream and affect the individual workers. So, further research should include both individual- and organizational-level interventions. During the COVID-19 pandemic, the United States has also experienced racial and social unrest, which undoubtedly has likely contributed to increased burnout, especially among URM populations. According to Restauri and Sheridan (2020), "Before addressing systems-based responses to [stressors], it is both essential and just to also consider the role that racism may play with regard to increased . . . susceptibility among minority health care providers in response to the COVID-19 pandemic" (p. 922–923).

REFERENCES

AAPA Task Force on PA Burnout. (2020). *Blueprint for addressing physician assistant well-being and burnout.* https://www.aapa.org/download/65276

Accreditation Review Commission on Education for the Physician Assistant. (2019). *Accreditation standards for physician assistant education* (5th ed.). https://arc-pa.org/wp-content/uploads/2020/01/AccredManual-5th-edition-11.19.pdf

Accreditation Review Commission on Education for the Physician Assistant. (2020). *Accredited programs.* https://www.arc-pa.org/accreditation/accredited-programs/

Alexander, D. L., III., & Sturges, D. (2019). Underrepresented minority physician assistant faculty mentorship: It takes a village. *The Journal of Physician Assistant Education*, *30*(2), 122–124. https://doi.org/10.1097/JPA.0000000000000253

American Academy of Physician Assistants. (2020). *What is a PA?* https://www.aapa.org/what-is-a-pa/

Awa, W. L., Plaumann, M., & Walter, U. (2010). Burnout prevention: A review of intervention programs. *Patient Education and Counseling*, *78*(2), 184–190. https://doi.org/10.1016/j.pec.2009.04.008

Bandura, A. (2004). Health promotion by social cognitive means. *Health Education & Behavior*, *31*(2), 143–164. https://doi.10.1177/1090198104263660

Bartram, T., Casimir, G., Djurkovic, N., Leggat, S. G., & Stanton, P. (2012). Do

    perceived high performance work systems influence the relationship between

    emotional labour, burnout and intention to leave? A study of Australian nurses.

    Journal of Advanced Nursing, *68*(7), 1567–1578. https://doi.org/10.1111/j.1365-

    2648.2012.05968.x

Beltyukova, S., & Graham, K. (2017). Predictors of physician assistant faculty intent to

    leave academia: A Rasch regression analysis. *The Journal of Physician Assistant*

    Education, *28*(1), 10–17. https://doi.org/1097/JPA.00000000000000103

Bernard, D. L., Lige, Q. M., Willis, H. A., Sosoo, E. E., & Neblett, E. W. (2017).

    Impostor phenomenon and mental health: The influence of racial discrimination

    and gender. *Journal of Counseling Psychology*, *64*(2), 155–166.

    https://doi.org/10.1037/cou0000197

Bethea, A., Samanta, D., Kali, M., Lucente, F. C., & Richmond, B. K. (2020). The impact

    of burnout syndrome on practitioners working within rural healthcare systems.

    American Journal of Emergency Medicine, *38*(3), 582–588.

    https://doi.org/10.1016/j.ajem.209.07.009

Bird, E. (2020). *Physician survey reveals widespread burnout.* Medical News Today.

    https://www.medicalnewstoday.com/articles/physician-survey-reveals-

    widespread-burnout

Birks, M., & Mills, J. (2014). *Qualitative methodology: A practical guide*. SAGE.

Breso, E., Schaufelt, W. B., & Salanova, M. (2011). Can a self-efficacy based

    intervention decrease burnout, increase engagement, and enhance performance? A

    quasi-experimental study. *Higher Education*, *61*(4), 339–355.

    https://doi.org/10.1007/s10734-010-9334-6

Bruce, S. P. (2009). Recognizing stress and avoiding burnout. *Currents in Pharmacy*

    Teaching and Learning, *1*(1), 57–64. https://doi.org/1016/j.cptl.2009.05.008

Card, A. J. (2018). Physician burnout: Resilience training is only part of the solution.

    Annals of Family Medicine, *16*(3), 267–270. https://doi.org/10.1370/afm.2223

Carter, R. (2001). Physician assistant history. *The Journal of Physician Assistant*

    Education, *12*(2), 130–132.

Cawley, J. F. (2007). Physician assistant education: An abbreviated history. *The Journal*

    of Physician Assistant Education, *18*(3), 6–15.

Centers for Disease Control and Prevention. (2019). *The social ecological model: A*

    framework for prevention.

    https://www.cdc.gov/violenceprevention/publichealthissue/social-

    ecologicalmodel.html

Chang, M. (2013). Toward a theoretical model to understand teacher emotions and

    teacher burnout in the context of student misbehavior: Appraisal, regulation and

    coping. *Motivation and Emotion*, *37*(4), 799–817. https://doi.org/10.1007/s11031-

    012-9335-0

135

Cohen, J. J. (1998). Time to shatter the glass ceiling for minority faculty. *Journal of the American Medical Association*, *28*(9), 821–822. https://doi.org/10.1001/jama.280.9.821

Coniglio, D., & Akroyd, D. (2015). Factors predicting physician assistant faculty intent to leave. *The Journal of Physician Assistant Education*, *26*(3), 113–122. https://doi.org/1097/JPA.0000000000000031

Coplan, B., McCall, T. C., Smith, N., Gellert, V. L., & Essary, A. C. (2018). Burnout, job satisfaction, and stress levels of PAs. *Journal of the American Academy of Physician Assistants*, *31*(9), 42–46. https://doi.org/10.1097/JAA.0000544305.38577.84

Cunningham, C. T., Quan, H., Hemmelgam, B., Noseworthy, T., Beck, C. A., Dixon, E., Samuel, S., Ghali, W. A., Sykes, L. I., & Jette, N. (2015). Exploring physician specialist response rates to web-based surveys. *BMC Medical Research Methodology*, *15*(32), 1–8. https://doi.org/10.1186/s12874-015-0016-z

Daley, S., Wingard, D. L., & Reznik, V. (2006). Improving the retention of underrepresented minority faculty in academic medicine. *Journal of the National Medical Association*, *98*(9), 1435–1440. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2569724/

Dandar, V. M., Grigsby, R. K., & Bunton, S. A. (2019). Burnout among U.S. medical school faculty. *Analysis in Brief*, *19*(1), 1–2. https://www.aamc.org/em/aib/aamc-february-2019-analysis-in-brief.pdf

136

Dyrbye, L. N., Thomas, M. R., Huschka, M. M., Lawson, K. L., Novotny, P. J., Sloan, J. A., & Shanafelt, T. D. (2006). A multicenter study of burnout, depression, and quality of life in minority and nonminority US medical students. *Mayo Clinical Proceedings*, *81*(11), 1435–1442. https://doi.org/10.4065/81.11.1435

Dyrbye, L. N., West, C. P., Halasy, M., O'Laughlin, D. J., Satele, D., & Shanafelt, T. (2020). Burnout and satisfaction with work-life integration among PAs relative to other workers. *Journal of the American Academy of Physician Assistants*, *33*(5), 35–44. https://doi.org/10.1097/JAA.0000660156.17502.e6

Essary, A. C., Bernard, K. S., Coplan, B., Dehn, R., Forister, J. G., Smith, N. E., & Valentin, V. L. (2018). *Blueprint and job career satisfaction in the physician assistant profession: A review of the literature.* National Academy of Medicine. https://nam.edu/wp-content/uploads/2018/11/Burnout-and-Satisfaction-in-the-PA-Profession.pdf

Forister, J. G., & Blessing, D. (2007). Professional burnout: A study of physician assistant educators. *The Journal of Physician Assistant Education*, *18*(4), 10–15. https://doi.org/10.1097/01367895-200718040-00003

Gardner, J. (2014). Ethical issues in public health promotion. *South African Journal of Bioethics and Law*, *7*(1), 30–33. https://doi.org/10.7196/SAJBL.268

Gómez-Gascón, T., Martín-Fernández, J., Gálvez-Herrer, M., Tapias-Merino, E.,

    Beamud-Lagos, M., & Mingote-Adán, J. C. (2013). Effectiveness of an

    intervention for prevention and treatment of burnout in primary health care

    professionals. *BMC Family Practice*, *14*, 173. https://doi.org/10.1186/1471-2296-

    14-173

Gottlieb, M., Chung, A., Battaglioli, N., Sebok-Syer, S. S., & Kalantari, A. (2020).

    Impostor syndrome among physicians and physicians in training: A scoping

    review. *Medical Education*, *54*(2), 116–124. https://doi.org/10.1111.medu.13956

Grandey, A., Foo, S. U., Groth, M., & Goodwin, R. E. (2012). Free to be you and me: A

    climate of authenticity alleviates burnout from emotional labor. *Journal of

    Occupational Health Psychology*, *12*(1), 1–14. https://doi.org/10.1037/a0025102

Grayson, J. L., & Alvarez, H. K. (2008). School climate factors relating to teacher

    burnout: A mediator model. *Teaching and Teacher Education*, *24*(5), 1349–1363.

    https://doi.org/10.1016/j.tate.2007.06.005

Harris, D. A., Haskell, J., Cooper, E., Crouse, N, & Gardner, R. (2018). Estimating the

    association between burnout and electronic health record-related stress among

    advanced practice registered nurses. *Applied Nursing Research*, *43*, 36–41.

    https://doi.org/10.1016/j/apnr.2018.06.014

Hegmann, T. E. (2020). Scholarly productivity and occupational stress among physician

    assistant educators. *The Journal of Physician Assistant Education*, *31*(2), 63–70.

    https://doi.org/10.1097/JPA.0000000000000296

Hoff, T., Carabetta, S., & Collinson, G. E. (2019). Satisfaction, burnout, and turnover among nurse practitioners and physician assistants: A review of the empirical literature. *Medical Care Research and Review*, *76*(1), 3–31. https://doi.org/10.1177/1077558717730157

Hooker, R. S., & Kuilman, L. (2011). Physician assistant education: Five countries. *Journal of Physician Assistant Education*, *22*(1), 53–58.

Innstrand, S. T., Espnes, G. A., & Mykletun, R. (2004). Job stress, burnout and job satisfaction: An intervention study for staff working with people with intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities*, *17*(2), 119–126. https://doi.org/10.1111/j.1360-2322.2004.00189.x

IsHak, W., Nikraveh, R., Lederer, S., Perry, R., Ogunyemi, D., & Bernstein, C. (2013). Burnout in medical students: A systematic review. *The Clinical Teacher*, *10*(4), 242–245. https://doi.org/1111/tct.12014

Johnson, A. K., Blackstone, S. R., Simmons, W., & Skelly, A. (2020). Assessing burnout and interest in wellness programs in physician assistant students. *The Journal of Physician Assistant Education*, *31*(2), 56–62. https://doi.org/1097/JPA.00000000000000303

Jones, P. E. (2007). Physician assistant education in the United States. *Academic Medicine*, *82*(9), 882–887. https://doi.org/10.1097/ACM.0b013e31812f7c0c

Jones, P. E., & Houchins, J. C. (2017). Physician assistant contributions to medical and higher education. *The Journal of Physician Assistant Education*, *28*(3S), S71–S74. https://doi.org/1097/JPA.00000000000000127

LaFever, K., Miyasaki, J. M., Keran, C. M., Rheaume, C., Gulya, L., Levin, K. H., Jones,

    E. C., Schwarz, H. B., Molano, J. R., Hessler, A., Singhal, D., Shanafelt, T. D.,

    Sloan, J. A., Novotny, P. J., Cascino, T. L., & Busis, N. A. (2018). Age and sex

    differences in burnout, career satisfaction, and well-being in US neurologists.

    Neurology, *91*(20), e1928–e1941.

    https://doi.org/10.10.1212/WNL0000000000006497

LaMonte, W. W. (2019). *The social cognitive theory*. Behavioral Change Models.

    https://sphweb.bumc.bu.edu/otlt/mph-

    modules/sb/behavioralchangetheories/behavioralchangetheories5.html

Lazarus, R. S. (1990). Theory-based stress management. *Psychological Inquiry*, *1*(1), 3–

    13. https://doi.org/10.1207/s15327965pli0101_1

Lazarus, R. S. (1993). Coping theory and research: Past, present, and future.

    Psychosomatic Medicine, *55*, 234–247.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.

Lebares, C. C., Braun, H. J., Guvva, E. V., Epel, E. S., & Hecht, F. M. (2018). Burnout

    and gender in surgical training: A call to re-evaluate coping and dysfunction. *The*

    American Journal of Surgery, *216*(4), 800–804

    https://doi.org/10.1016/j.amjsurg.2018.07.058

Legler, C. F., Cawley, J. F., & Fenn, W. H. (2007). Physician assistants: Education,

    practice and global interest. *Medical Teacher*, *29*(1), e22–e25.

    https://doi.org/10.1080/01421590601034696

Leiter, M. P., & Maslach, C. (2005). Reversing burnout: How to rekindle your passion for your work. *Stanford Social Innovation Review*, 3(4), 43–49.

LeLacheur, S., Barnett, J., & Straker, H. (2015). Race, ethnicity, and the physician assistant profession. *Journal of the American Academy of Physician Assistants*, *28*(10), 41–45. https://doi.org/10.1097/01/.JAA.0000471609.54160.44

LeLacheur, S. F., Bester, V., Oxendine, L. H., Bradley-Guidry, C., Ryujin, D., Samuels, K., Maldonado, A., Bowen, D., & Himmerick, K. (2019). Minority physician assistant faculty: A phenomenological assessment of factors leading to retention in the faculty role. *The Journal of Physician Assistant Education*, *30*(2), 79–85. https://doi.org/10.1097/JPA.0000000000000257

Leon, A. C., Davis, L. L., & Kraemer, H. C. (2011). The role and interpretation of pilot studies in clinical research. *Journal of Psychiatric Research*, *45*(5), 626–629. https://doi.org/10.1016/j.jpsychires.2010.10.008

Linke, S. E., Robinson, C. J., & Pekmezi, D. (2013). Applying psychological theories to promote healthy lifestyles. *American Journal of Lifestyle Medicine*, *8*(1), 4–14. https://doi.10.1177/1559827613487496

Linzer, M., Poplar, S., Grossman, E., Varkey, A., Yale, S., Williams, E., Hicks, L., Brown, R. L., Wallock, J., Kohnhorst, D., & Barbouche, M. (2015). A cluster randomized trial of interventions to improve work conditions and clinician burnout in primary care: Results from the healthy work place (HWP) study. *Journal of General Internal Medicine*, *30*(8), 1105–1111. https://doi.org/10.1007/s11606-015-3235-4

Marchand, A., Blanc, M. E., & Beuregard, N. (2018). Do age and gender contribute to
workers' burnout symptoms? *Occupational Medicine*, *68*(6), 405–411.
https://doi.org/10.1093/occmed/kgy088

Margaret, K., Simon, N., & Sabina, M. (2018). Sources of occupational stress and coping
strategies among teachers in Borstal institutions in Kenya. *Edelweiss: Psychiatry
Open Access*, *2*(1), 18–21.

Maricuţoiu, L. P., Sava, F. A., & Butta, O. (2016). The effectiveness of controlled
interventions on employee's burnout: A meta-analysis. *Journal of Occupational
and Organizational Psychology*, *89*(1), 1–27. https://doi.org/10.1111/joop.12099

Maslach, C. (1978). The client role in staff burn-out. *Journal of Social Issues*, *34*(4),
111–124. https://doi.org/10.1111/j.1540-4560.1978.tb00778.x

Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal
of Occupational Behaviour*, *2*(2), 99–113.
https://doi.org/10.1002/job.4030020205

Maslach, C., & Leiter, M. P. (2008). Early predictors of job burnout and engagement.
Journal of Applied Psychology, *93*(3), 498–512. https://doi.org/10.1037/0021-
9010.93.3.498

Maslach, C., Jackson, S. E., & Leiter, M. P. (2018). *Maslach Burnout Inventory manual*
(4th ed.). Mind Garden.

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of
Psychology*, *52*, 397–422. https://doi.org/10.1146/annurev.psych.52.1.397

National Commission for Health Education Credentialing. (2020). *Areas of responsibility, competencies and sub-competencies for health education specialist practice analysis II 2020 (HESPA II 2020)*. Responsibilities and Competencies. https://assets.speakcdn.com/assets/2251/hespa_competencies_and_sub-competencies_052020.pdf

Nivet, M. A. (2010). Minorities in academic medicine: Review of the literature. *Journal of Vascular Surgery*, *51*(95), 53S–58S. https://doi.org/1016/j.jvs-2009.09.064

Nivet, M. A., Taylor, V. S., Butts, G. C., Strelnick, A. H., Herbert-Carter, J., Fry-Johnson, Y. W., Smith, Q. T., Rust, G., & Kondwani, K. (2008). Case for minority faculty development today. *Mount Sinai Journal of Medicine*, *75*(6), 491–498. https://doi.org/10.1002/msj.20079

Parker, P. D., & Salmela-Aro, K. (2011). Developmental processes in school burnout: A comparison of major developmental models. *Learning and Individual Differences*, *21*(2), 244–248. https://doi.org/10.1016/j.lindif.2011.01.005

Parker, P. D., Martin, A. J., Colmar, S., & Liem, G. A. (2012). Teachers' workplace well-being: Exploring a process model of goal orientation, coping behavior, engagement, and burnout. *Teaching and Teacher Education*, *28*(4), 503–513. https://doi.org/10.1016/j.tate.2012.01.001

Physician Assistant Education Association. (2017). *Strategic plan 2017*. https://paeaonline.org/wp-content/uploads/2021/02/PAEA-Strategic-Plan-2017.pdf

Physician Assistant Education Association. (2018). *By the numbers: Faculty report 3:*

    Data from 2017 faculty & directors survey. https://doi.org/10.17538/FR3.2018

Physician Assistant Education Association. (2019). *By the numbers: Faculty report 34:*

    Data from 2018 program survey. https://doi.org/10.17538/PR34.2019

Physician Assistant Education Association. (2020a). *By the numbers: Faculty report 4:*

    Data from 2019 faculty & directors survey. https://doi.org/10.17538/FR4.2020

Physician Assistant Education Association. (2020b). *About PAEA*. https://paeaonline.org

Pololi, L., Cooper, L. A., & Carr, P. (2010). Race, disadvantage and faculty experiences

    in academic medicine. *Journal of General Internal Medicine*, *25*(12), 1363–1369.

    https://doi.org/1007/s11606-010-1478-7

Prasad, K., McLoughlin, C., Stillman, M., Poplar, S., Goelz, E., Taylor, S., Nankivil, N.,

    Brown, R., Linzer, M., Cappelucci, K., Barbouche, M., & Sinsky, C. A. (2021).

    Prevalence and correlates of stress and burnout among U.S. healthcare workers

    during the COVID-19 pandemic: A national cross-sectional survey study.

    EClinicalMedicine, *35*(100879). https://doi.org/10.1016/j.eclinm.2021.100879

Price, E. G., Powe, N. R., Kern, D. E., Golden, S. H., Wand, G. S., & Cooper, L. A.

    (2009). Improving the diversity climate in academic medicine: Faculty

    perceptions as a catalyst for institutional change. *Academic Medicine*, *84*(1), 95–

    105. https://doi.org/1097/ACM.0b013e3181900f29

Rabatin, J., Williams, E., Manwell, L. B., Schwartz, M. D., Brown, R. L., & Linzer, M.

(2016). Predictors and outcomes of burnout in primary care physicians. *Journal of*

Primary Care & Community Health, *7*(1), 41–43.

https://doi.org/10.1177/2150131915607799

Restauri, N., & Sheridan, A. D. (2020). Burnout and posttraumatic stress disorder in the

Coronavirus Disease 2019 (COVID-19) pandemic: Intersection, impact, and

interventions. *Journal of the American College of Radiology*, *17*(7), 921–929.

https://doi.org/10.1016/j.jacr.2020.05.021

Robichaux, C., Tietze, M., Stokes, F., & McBride, S. (2019). Reconceptualizing the

electronic health record for a new decade: A caring technology? *Advances in*

Nursing Science, *42*(3), 193-205.

https://doi.org/10.1097/ANS.0000000000000282

Rodriguez, J. E., Campbell, K. M., Fogarty, J. P., & Williams, R. L. (2014).

Underrepresented minority faculty in academic medicine: A systematic review of

URM faculty development. *Family Medicine*, *46*(2), 79–85.

https://diginole.lib.fsu.edu/islandora/object/fsu%3A207781/

Sallis, J. F., & Owen, N. (2015). Ecological models of health behavior. In K. Glanz, B. K.

Rimer, & K. Viswanath (Eds.), *Health behavior: Theory, research, and practice*

(pp. 43–64). Jossey-Bass.

Schaufeli, W. B., Bakker, A. B., Hoogduin, K., Schaap, C., & Kladler, A. (2001). On the
clinical validity of the Maslach burnout inventory and the burnout measure.
Psychology and Health, *16*(5), 565–582.
https://doi.org/10.1080/08870440108405527

Schulte, F., & Fry, E. (2019). *Death by 1,000 clicks: where electronic health records
went wrong.* Braceworks. https://braceworks.ca/2019/04/26/health-tech/death-by-
1000-clicks-where-electronic-health-records-went-wrong/#Top

Shakir, H. J., Cappuzzo, J. M., Shallwani, H., Kwasnicki, A., Bullis, C., Wang, J., Hess,
R. M., & Levy, E. I. (2020). Relationship of grit and resilience to burnout among
US neurosurgery residents. *World Neurosurgery*, *134*, e224–e236.
https://doi.org/10.1016/j.wneu.2019.10.043

Shanafelt, T. D., & Noseworthy, J. H. (2017). Executive leadership and physician well-
being: Nine organizational strategies to promote engagement and reduce burnout.
Mayo Clinical Proceedings, *92*(1), 129–146.
https://doi.org/10.1016/j.mayocp.2016.10.004

Siu, O. L., Cooper, C. L., & Phillips, D. R. (2014). Intervention studies on enhancing
work well-being, reducing burnout, and improving recovery experiences among
Hong Kong health care workers and teachers. *International Journal of Stress
Management*, *21*(1), 69–84. https://doi.org/10.1037/a0033291

Sotto-Santiago, S., Tuitt, F., & Saelua, N. (2019). All faculty matter: The continued
search for culturally relevant practices in faculty development. *The Journal of
Faculty Development*, *33*(3), 83–93.

146

Sturges, D. (2018). Imposter phenomenon and underrepresented minorities: What

    physician assistant educators need to know. *The Journal of Physician Assistant*

    Education, *29*(2), 126–128. https://doi.org/10.1097/JPA.0000000000000194

The Survey System. (2012). *Sample size calculator.*

    https://surveysystem.com/sscalc.htm#one

Templeton, K., Bernstein, C. A., Sukhera, J., Nora, L. M., Newman, C., Burstin, H.,

    Guille, C., Lynn, L., Schwarze, M. L., Sen, S., & Busis, N. (2019, May 28).

    Gender-based differences in burnout: Issues faced by women physicians

    [Discussion paper]. National Academy of Medicine Perspectives.

    https://doi.org/10.31478/201905a

Tetzlaff, E. D., Coplan, B., Bernard, K., Sierra, T., & Dominguez, D. (2020). Addressing

    PA burnout. *Journal of the American Academy of Physician Assistants*, *33*(7), 10–

    11. https://doi.org/10.1097/01.JAA.0000668840.02042.2c

Tsai, J., Jones, N., Klee, A., & Deegan, D. (2020). Job burnout among mental health staff

    at a Veterans Affairs psychosocial rehabilitation center. *Community Mental*

    Health Journal, *56*(2), 294–297. https://doi.org/10.1007/s10597-019-00487-5

Wethington, E., Glanz, K., & Schwartz, M. D. (2015). Stress, coping, and health

    behavior. In K. Glanz, B. K. Rimer, & K. Viswanath (Eds.), *Health behavior:*

    Theory, research, and practice (pp. 223–242). Jossey-Bass.

White, S. W., Xia, M., & Edwards, G. (2020). Race, gender, and scholarly impact:

    Disparities for women and faculty of color in clinical psychology. *Journal of*

    Clinical Psychology, *7*(1), 78–89. https://doi.org/10.1002/jclp.23029

Wingard, D., Trejo, J., Gudea, M., Goodman, S., & Reznik, V. (2018). Faculty, equity, diversity, culture and climate change in academic medicine: A longitudinal study. *Journal of the National Medical Association*, *111*(1), 46–53. https://doi.org/10.106/j.jnma.2018.05.004

World Health Organization. (2020). *Burnout an "occupational phenomenon": International classification of diseases.* https://who.int/mental_health/evidence/burn-out/en

Wyatt, T. R., Rockich-Winston, N., White, D., & Taylor, T. R. (2020). "Changing the narrative": A study on professional identity formation among Black/African American physicians in the U.S. *Advances in Health Sciences Education*, *26*, 183–198. https://doi.org/10.1007/s10459-020-09978-7

Yan, Q., Jiang, Z., Harbin, Z., Tolbert, P. H., & Davis, M. G. (2021). Exploring the relationship between electronic health records and provider burnout: A systematic review. *Journal of the American Medical Informatics Association*, *28*(5), 1009-1021. https://doi.org/10.1093/jamia/ocab009

Zambrana, R. E., Ray, R., Espino, M. M., Castro, C., Cohen, B. D., & Eliason, J. (2015). "Don't leave us behind": The importance of mentoring for underrepresented minority faculty. *American Educational Research Journal*, *52*(1), 40–72. https://doi.org/10.3101/0002831214563063

Zolnierczyk-Zreda, D. (2005). An intervention to reduce work-related burnout in teachers. *Journal of Occupational Safety and Ergonomics*, *11*(4), 423–430. https://doi.org/10.1080/10803548.2005.11076661

APPENDIX A

IRB Approval

December 23, 2020

Daytheon Sturges
Health Promotion & Kinesiology

Re: Exempt - IRB-FY2021-45 A Light in the Flame: Perceived Burnout Among Underrepresented Minority Physician Assistant Educators in the United States

Dear Daytheon Sturges,

The above referenced study has been reviewed by the TWU IRB - Denton operating under FWA00000178 and was determined to be exempt on December 23, 2020.

Note that any modifications to this study must be submitted for IRB review prior to their implementation, including the submission of any agency approval letters, changes in research personnel, and any changes in study procedures or instruments. Additionally, the IRB must be notified immediately of any adverse events or unanticipated problems. All modification requests, incident reports, and requests to close the file must be submitted through Cayuse.

On December 31, 2021, this approval will expire and the study must be renewed or closed. A reminder will be sent 45 days prior to this date.

If you have any questions or need additional information, please contact the IRB analyst indicated on your application in Cayuse or refer to the IRB website at http://www.twu.edu/institutional-review-board-irb/.

Sincerely,

TWU IRB - Denton

APPENDIX B

Maslach Burnout Inventory – Educators Survey

<div style="border:2px solid black;">

Maslach Burnout Inventory™

Instruments and Scoring Keys

Includes MBI Forms:
**Human Services - MBI-HSS
Medical Personnel - MBI-HSS (MP)
Educators - MBI-ES
General - MBI-GS
Students - MBI-GS (S)**

</div>

Christina Maslach
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Review Copy: MBI for Educators Survey

How often:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

How often 0-6

Statements:

1. _____ I feel emotionally drained from my work.
2. _____ I feel used up at the end of the workday.
3. _____ I feel fatigued when I get up in the morning and have to face another day on the job.
4. _____ I can easily understand how my students feel about things.
5. _____ I feel I treat some students as if they were impersonal objects.
6. _____ Working with people all day is really a strain for me.
7. _____ I deal very effectively with the problems of my students.
8. _____ I feel burned out from my work.
9. _____ I feel I'm positively influencing other people's lives through my work.
10. _____ I've become more callous toward people since I took this job.
11. _____ I worry that this job is hardening me emotionally.
12. _____ I feel very energetic.
13. _____ I feel frustrated by my job.
14. _____ I feel I'm working too hard on my job.
15. _____ I don't really care what happens to some students.
16. _____ Working with people directly puts too much stress on me.
17. _____ I can easily create a relaxed atmosphere with my students.
18. _____ I feel exhilarated after working closely with my students.
19. _____ I have accomplished many worthwhile things in this job.
20. _____ I feel like I'm at the end of my rope.
21. _____ In my work, I deal with emotional problems very calmly.
22. _____ I feel students blame me for some of their problems.

(Administrative use only)

EE Total score: _____ DP Total score: _____ PA Total score: _____

EE Average score: _____ DP Average score: _____ PA Average score: _____

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APPENDIX C

Demographics Survey

Demographics Survey

Please fill in the following:

What is your email address? _____

In which state do you work? _____

Select One.

Age

____ 20–34 years

____ 35–44 years

____ 45–54 years

____ 55–64 years

____ 65 years and above

Gender

____ Man

____ Woman

____ Prefer not to answer

Race

____ American Indian or Alaskan Native

____ Asian

____ Black or African American

____ Multiracial

____ Native Hawaiian or other Pacific Islander

_____ White

Faculty Role

_____ Principal faculty

_____ Academic Coordinator/ Director of Didactic Education

_____ Clinical Coordinator / Director of Clinical Education

_____ Director of Research

_____ Program Director

_____ Associate Program Director

_____ Medical Director

"Years in Faculty Position"

_____ 0–4 years

_____ 5–9 years

_____ 10–14 years

_____ 15–19 years

_____ 20 years and above

APPENDIX D

Semistructured Interview Questions

Semistructured Interview Questions

1. What does burnout mean to you?

2. What, if anything, contributes to burnout for you?

3. How does your current program help you address burnout, if at all?

   a. If not, what strategies would you like to see implemented?

4. How does your current institution help you address burnout, if at all?

   a. If not, what strategies would you like to see implemented?

5. I want you to name a common work-related stress trigger. If you're comfortable, what is your usual initial response when the stress trigger occurs?

6. After your initial response to a stressful situation, what type of coping strategy or strategies, if any, do you usually use to make yourself feel better? Please explain.

7. Is there anything that you would like to add about your experience as a URM PA educator?

APPENDIX E

Feedback from Semistructured Interview Pilot

Feedback from Semistructured Interview Pilot

Associate Professor of Family Medicine
University of Washington Medical Center
Seattle, Washington

Question 1: What does burnout mean to you?

Offer a definition (consider its relevance in the participant's life and if it is a part of their vocabulary). Another word is compassion fatigue. There may be an assumption that the word already means something to the participant. There is an implied assumption when asking the question without defining it. Also, the researcher could offer an introduction before the first question, which includes the definition of burnout. The researcher could possibly say: "I'm curious about your thoughts regarding this topic."

- Approaches: validate or express curiosity if the person's answer is pragmatic or idiosyncratic; avoid using the word "but" because that begins a "battle." Find a space to converge. How can we establish a shared experience to discuss the rest of the interview?

Question 2: What, if anything, contributes to burnout for you?

The foundational assumption is that the participant knows the contributory factors or that they are able to think on their feet. The risk for the researcher is that the person may not know how to answer the question. A strategy to use is to give an example. Also, try reflective techniques and abstract into the contributory factors by asking the participant about their personal experiences. Link it to the transparent reason for their selection – "What is happening or has happened that led to your high emotional exhaustion score?" "Help me understand. How did you come to be in a place that resulted in you scoring this way?"

Question 3/4: How does your current program help you address burnout, if at all? a. If not, what strategies would you like to see implemented? How does your current institution help you address burnout, if at all? a. If not, what strategies would you like to see implemented?

Find strategies to understand the culture of burnout at the program and institution level, knowing that it might not specifically be labeled as burnout. So, if a participant cannot answer the question, then give examples of possible interventions that are not specifically labeled as burnout strategies. Also, ask how the tasks are accomplished. Maybe identify follow-up questions to help supplement the open-ended question. Seek to understand the experience and not just name things, as the results can be minimal.

Question 5/6: I want you to name a common work-related stress trigger. If you're comfortable, what is your usual initial response when the stress trigger occurs? After your initial response to a stressful situation, what type of coping strategy or strategies, if any, do you usually use to make yourself feel better? Please explain.

Establish a shared understanding of what "stress trigger" means. Offer a definition of "stress trigger" (define it as provoking an emotional response) and then proceed with the question. Ask the interviewee to help you understand, assuming that you do not understand the stressor affects the participant. Use the framework of stress and appraisal and then react to help explain stress triggers. Invite reflection. Instead of saying common work-related stressors, the researcher may want to ask the participant to name triggers that are most common, raises their anxiety level, follows them home, and exposes vulnerability, etc. How often does it happen? These are follow-up questions to the primary question. For question 6, maybe develop a time framework and then ask how the person coped while allowing them to describe the experience and/or situation.

Question 7: Is there anything that you would like to add about your experiences as a URM PA educator?

The pilot subject suggests that the researcher makes his assumptions specifically clear. For someone who does not bring race into the conversation, ask them how race has played a part in burnout from their personal lens. For someone who has shared lots of information, ask them to share more.