Organizational Factors that May Contribute to Physician Burnout:
EXECUTIVE SUMMARY

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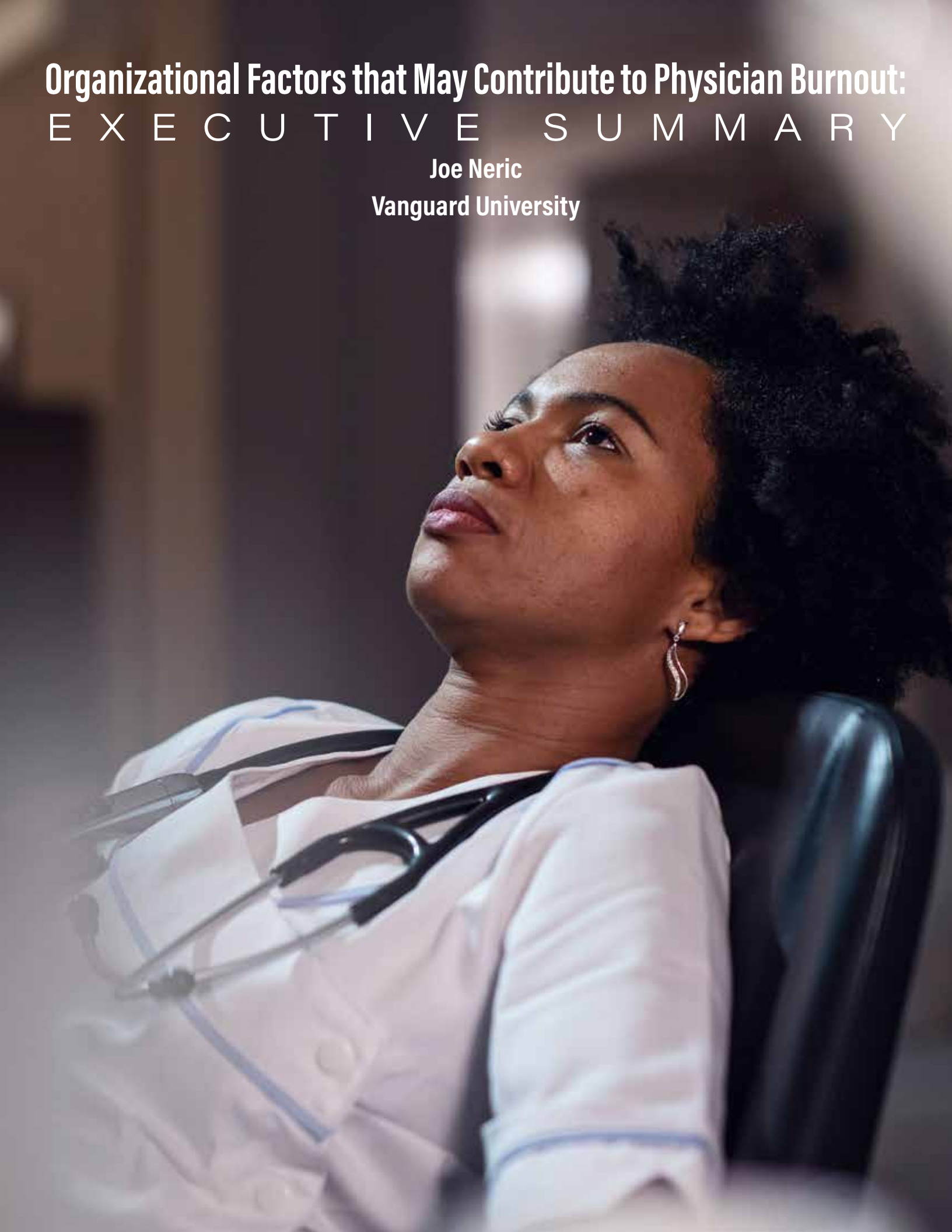

Burnout is pervasive in the healthcare industry and is disproportionately affecting physicians. Moreover, describing physicians as burned-out has unfortunately become *cliché*. Yet, when the subject of burnout is brought to attention, a common question is; *What can we do about it?* (Maslach, 2017). Lathrop (2017) stated, "occupational burnout can be prevented when research informs the solutions" (p. 377).

Physicians and organizational psychologists agree that professional burnout is a psychological response to chronic workplace stress (Shanafelt et al., 2019; DeChant & Shannon, 2016; Shanafelt et al., 2015; Dyrbye et al., 2014; Shanafelt et al., 2012; Maslach, 2017; Maslach, Schaufeli, & Leiter, 2001; Schaufeli et al., 2009). "Burnout is a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with people" (Schaufeli et al., 2009, p. 206). Even though there is comprehensive research on physician burnout—particularly physician driven—this research aims to highlight the importance of how healthcare organizations negatively contribute to physician's workplace stress.

THE PREVALENCE OF BURNOUT IN MEDICINE

There have been extraordinary changes to the U.S. health care system between 2010 and 2020. Mergers and acquisitions have changed the typical medical business model (Murphy, 2017). As of 2016, private practicing physicians are now the minority (47.1%) when compared to 1983 (76.1%) (Murphy, 2017). Health care regulations and policy changes (e.g., The Affordable Healthcare Act) have changed the physician's daily work (Shanafelt et al., 2019). The increased use of electronic health records (EHR) has dramatically changed the relationship between the physician and the patient where physicians are now spending two hours on documentation for every hour spent with the patient (Shanafelt et al. 2019; Arndt et al. 2017; Tai-Seale et al., 2017). Compounding workplace stress, administrative efficiency standards (e.g., time to answer emails and chart completion for billing purposes), flawed patient surveys, and productivity measurements (e.g., relative value unit creation) have altered organizational leadership's perception and expectation of what is a "good doctor" (Shanafelt et al., 2019, p.1682).

Shanafelt et al., (2012) assessed the prevalence of burnout in 2011 and reported 45.8% of surveyed physicians (n = 7288) had at least one symptom of burnout ($p < .05$). Between 2011 and 2014, Shanafelt et al. (2015) reported a significant increase of burnout where 54.4% of surveyed physicians (n = 3680) showed at least one symptom of burnout ($p < .001$). More recently, however, Shanafelt et al. (2019) reported a decrease in burnout among physicians (43.9%; n = 2147; $p < .001$) but an increase in depressive symptoms from 2011 through 2019 (5.7%; $p < .001$). The speculation in the variance in physician burnout between 2014 through 2019 is an increase in turnover where physicians left the profession (Shanafelt et al., 2019).

While literature identifying the prevalence of physician burnout is immense (Shanafelt et al., 2019; DeChant & Shannon, 2016; Shanafelt et al., 2015; Dyrbye et al., 2014; Shanafelt et al., 2012), the literature identifying organizational factors that may contribute to burnout is scarce (DeChant & Shannon, 2016). When half of practicing physicians report being burned-out, it is not a problem with the physician; it is an organizational problem (DeChant & Shannon, 2016). Similarly, Maslach and Leiter (1997) argue that burnout is not linked to an individual's temperament or pathology, but rather it is an organizational problem.

HYPOTHESES

Research indicates that burnout among physicians has reached epidemic proportions and without relief in sight. Organizational sources of physician burnout include: (a) an unsustainable workload, (b) lack of fairness, (c) inadequate reward, (d) failing community support, (e) absence of fairness, and (f) mismatch in values.

The Oldenburg Burnout Inventory (OLBI) is a 16-item validated scale that measures perceived burnout from participant responses ranging from (1) "strongly agree though (4) "strongly disagree." A higher score indicates the presence of burnout. The Areas of Worklife Survey (AWS) is a validated 28-item scale which provides quantitative data to the degree of the incongruence (mismatch or misalignment) between the person and the job in six areas of worklife: (a) workload, (b) control, (c) reward, (d) community, (e) fairness, and (f) values. The AWS utilizes responses ranging from (1) "strongly disagree" though (3) "hard to decide" to (5) "strongly agree". A lower score indicates a greater mismatch between the person and the job. To examine the prevalence of burnout and the incongruence (mismatch or misalignment) between the physician and the job, several hypotheses were analyzed:

H1: Burnout, disengagement, and exhaustion will negatively correlate with workload.
H2: Burnout, disengagement, and exhaustion will negatively correlate with control.
H3: Burnout, disengagement, and exhaustion will negatively correlate with reward.
H4: Burnout, disengagement, and exhaustion will negatively correlate with community.
H5: Burnout, disengagement, and exhaustion will negatively correlate with fairness.
H6: Burnout, disengagement, and exhaustion will negatively correlate with values.

METHODOLOGY

- A survey was created using Google Forms.
- Participants were recruited through email and social media. Participants were provided with a brief description and a link to the survey.
- The survey consisted of a consent form, demographic questions, and two validated instruments (the OLBI and the AWS).

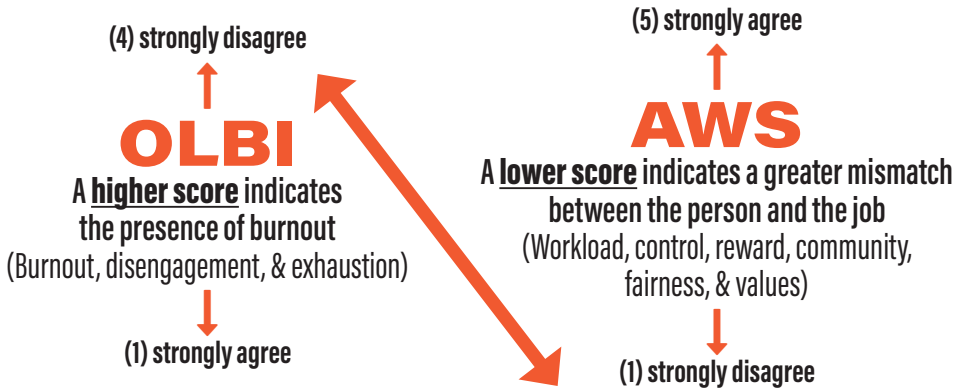

TABLE 1
Participant Demographics

Characteristic	n	%
Gender		
Male	64	32.3
Female	134	67.7
Marital Status		
Married	148	75.1
Single	32	16
Divorced	12	6
Widowed	1	.5
Decline to Answer	5	2.5
Children		
None	69	34.8
One	26	13.1
Two	64	32.3
Three	27	13.6
Four or more	11	5.6
Age		
25-34	37	18.7
35-44	53	26.8
45-54	64	32.3
55-64	24	12.1
65-74	6	3
Decline to Answer	14	7
Religious Affiliation		
Christian	81	40.9
Agnostic/Atheist	61	30.8
Jewish	24	12.1
Muslim	3	1.5
Buddhist	1	.5
Other (e.g. "spiritual)	10	5
Decline to answer	10	5

Note. N=198.

RESULTS

Respondents in this study were self-identified physicians (n = 198). The sample included 64 males (32.3%) and 134 females (67.7%). All participants were older than 18 years of age, with a range of 27-70 years of age with an average age of 45 years of age. All participants reported to have earned medical degrees and are currently practicing medicine. Some participants, 62.6% (n = 124) reported to have earned advanced degrees (Masters level education and above) in addition to their medical degree.

Respondents identified as: Caucasian (n = 146; 73.7%), Asian (n = 24; 12.1%), Latino (n = 9; 4.5%), Middle Eastern/North African (n = 8; 4%), Black/African American (n = 2; 1%); other (e.g. mixed race; n = 6; 3%), or decline to answer (n = 3; 1.5%). Participants indicated the type of medical practice with the most common as Internal Medicine (n = 45; 22.7%). Participants were separated into general practice medicine (Family, General, Internal, and Pediatrics; 54.5%; n = 108) and all other specialists (45.5%; n = 90) and no significant correlations were found which is contradictory to the current research (DeChant & Shannon, 2016). Table 1 displays the participant demographics.

Respondents indicated hours worked in a week ranged from 15-112 hours, with an average of 52.78 hours per week, and with 60 hours per week as the most common report (n = 41; 20.7%). Participants indicated on how they were paid as: salary (n = 92; 46.5%) and salary

Maslach (2017) argues a consistent theme in burnout research is the complicated relationship between the employee and the job, which is often articulated as an "imbalance, or misalignment, or misfit" (p. 149). Leiter and Maslach (2004) argue the greater the incongruence (mismatch or misalignment) between the employee and the job, the probability of burnout increases.

TABLE 3

Hypotheses Results: OLBI and AWS Correlations

	Workload	Control	Reward	Community	Fairness	Values
Burnout	-.598**	-.492**	-.517**	-.505**	-.622**	-.462**
Disengagement	-.475**	-.458**	-.480**	-.483**	-.617**	-.438**
Exhaustion	-.622**	-.398**	-.472**	-.420**	-.520**	-.353**

N=198. High scores with the OLBI indicate burnout, disengagement, and exhaustion. Low scores with the AWS indicate an incongruence with the person and the job.

** p < .05; ** p < .01.*

with incentives (n = 106; 53.5%). Participants indicated the typical patients seen per day ranged between 0-100 patients, with an average of 17.58 patients per day, and with 10 patients as the most common report (n = 21; 10.6%). Table 2 displays the participant's organizational demographics.

OLBI RESULTS: BURNOUT, EXHAUSTION, AND DISENGAGEMENT

Results using the Oldenburg Burnout Inventory (OLBI) indicated an overall average burnout score of 2.75, which suggests 37.4% physicians (with a score of 3 or higher) report at least 1 aspect of burnout (burnout, exhaustion, and/or disengagement). This discovery was lower than expected as the current research suggests physician burnout is currently reported at 43.9% (Shanafelt et al.,2019). Moreover, 35.8% of the participants reported to be disengaged (cynical towards patients) and 53% reported feelings of exhaustion.

AWS RESULTS: JOB-PERSON FIT

The Areas of Worklife Survey (AWS) was used to measure the incongruence (mismatch or misalignment) between the employee and the job in six domains of work: workload, control, reward, community, fairness, and values. Results from each subscale reporting moderate to strong mismatch between the physician and the work environment (with a score of 3 or lower) are as follows: Workload: 53%; Control: 56.1%; Reward: 30.8%; Community 29.3%; Fairness: 36.4%; and Values: 42.9%.

HYPOTHESES RESULTS

This study examined the relationship between burnout (exhaustion, and disengagement) with six areas of worklife: workload, control, reward, community, fairness, and values. Table 3 displays the bivariate correlations between these variables. Two-tailed Person's Correlation were conducted to test all hypotheses.

TABLE 2

Participant's Organizational Demographics

Characteristic	n	%
Advanced degree (Masters or higher) in addition to M.D.		
Yes	124	62.6
No	74	37.4
Average hours worked per week		
10-20	2	1
21-30	6	3
31-40	39	19.7
41-50	57	28.8
51-60	59	29.8
61-70	18	9
71-80	10	5
81-90	3	1.5
91-100	1	.5
101-110	0	0
111-112	1	.5
Missing	2	1
Patients per day (average)		
0-10	62	31.3
11-20	92	46.5
21-30	26	13.1
31-40	9	4.5
41-50	4	2
51-60	1	.5
61-70	0	0
71-80	1	.5
81-90	1	.5
91-100	1	.5

Note. N=198. Participants worked 52.78 hours per week on average (SD=14.112; Mdn=50.00; Mode: 60). 58.6% of the participants (n=116) worked between 40-60 hours per week.

HYPOTHESIS 1

Hypothesis 1 speculated burnout, disengagement, and exhaustion will negatively correlate with workload. Analysis revealed significant negative correlations between burnout, disengagement, and exhaustion with a sustainable workload (burnout: $r(121) = -.598$; $p < .001$; disengagement: $r(123) = -.475$; $p < .001$; exhaustion: $r(122) = -.622$; $p < .001$). Therefore, participants experiencing a strong incongruence (mismatch or misalignment) with workload (the amount of work to be done in a given time) also experienced high burnout, high disengagement (withdrawal and identity from work), and high exhaustion (physical and cognitive demands of the job).

TABLE 2
Participant's Organizational Demographics

Characteristic	n	%
Rank in Organization		
Head of department	4	2
Attending physician or hospitalist	5	2.5
Fellow	10	5.1
Chief resident	4	2
Senior resident	130	65.7
Junior resident	17	8.6
Intern	25	12.6
Missing	3	1.5
Base of main practice		
Allergy & Immunology	1	.5
Anesthesiology	5	2.5
Emergency Medicine	5	2.5
Family Medicine	31	15.7
General Practice	5	2.5
Hospitalist	6	3
Internal Medicine	45	22.7
Neurological Surgery	1	.5
Neuromusculoskeletal	1	.5
Medicine & OMM	1	.5
Obstetrics & *Gynecology*	17	8.6
Ophthalmology	1	.5
Orthopedic Surgery	2	1.0
Pathology	1	.5
Pediatrics	27	13.6
Physical Medicine & Rehabilitation	1	.5
Psychiatry & *Neurology*	12	6.1
Radiology	18	9.1
Surgery	13	6.6
Thoracic Surgery (Cardiothoracic *Vascular Surgery)*	1	.5
Transplant Surgery	1	.5
Urology	2	1

Note. N=198.

HYPOTHESIS 2

Hypothesis 2 speculated burnout, disengagement, and exhaustion will negatively correlate with individual (or personal) control. Analysis discovered significant negative correlations between burnout, disengagement, and exhaustion with control (burnout: $r(191) = -.492$; $p < .001$; disengagement: $r(193) = -.458$; $p < .001$; exhaustion: $r(192) = -.398$; $p < .001$). This discovery suggests participants experiencing an incongruence (mismatch or misalignment) in control (ability to employ professional autonomy) in their work also experienced high burnout, increased disengagement, and increased exhaustion.

HYPOTHESIS 3

Hypothesis 3 speculated burnout, disengagement, and exhaustion will negatively correlate with reward. Analysis revealed significant negative correlations between burnout, disengagement, and exhaustion with adequate employer reward (burnout: $r(120) = -.517$; $p < .001$; disengagement: $r(122) = -.480$; $p < .001$; exhaustion: $r(121) = -.472$; $p < .001$). This discovery suggests participants experiencing incongruence (mismatch or misalignment) in reward (financial and social recognition) in their work also experienced high burnout, increased disengagement, and increased exhaustion.

HYPOTHESIS 4

Hypothesis 4 speculated burnout, disengagement, and exhaustion will negatively correlate with community. Analysis revealed significant negative correlations between burnout, disengagement, and exhaustion with sense of community (burnout: $r(192) = -.505$; $p < .001$; disengagement: $r(194) = -.483$; $p < .001$; exhaustion: $r(193) = -.420$; $p < .001$). This discovery suggests participants experiencing incongruence (mismatch or misalignment) in community (quality of the organization's social environment) in their work also experienced high burnout, increased disengagement, and increased exhaustion.

HYPOTHESIS 5

Hypothesis 5 speculated burnout, disengagement, and exhaustion will negatively correlate with perceived organizational fairness. Analysis revealed significant negative correlations between burnout, disengagement, and exhaustion with fairness (burnout: $r(118) = -.622$; $p < .001$; disengagement: $r(117) = -.617$; $p < .001$; exhaustion: $r(117) = -.520$; $p < .001$). This discovery suggests participants experiencing incongruence (mismatch or misalignment) in fairness (organization has consistent and fair rules) in their work also experienced high burnout, increased disengagement, and increased exhaustion.

HYPOTHESIS 6

Hypothesis 6 speculated burnout, disengagement, and exhaustion will negatively correlate with values. Analysis revealed significant negative correlations between burnout, disengagement, and exhaustion with aligned (personal and organizational) values (burnout: $r(190) = -.462$; $p < .001$; disengagement: $r(192) = -.438$; $p < .001$; exhaustion: $r(117) = -.353$; $p < .001$). This discovery suggests participants experiencing incongruence (mismatch or misalignment) in values (what is important to the organization and to its employees) in their work also experienced high burnout, increased disengagement, and increased exhaustion.

REGRESSION ANALYSIS

BURNOUT

According to stepwise regression analysis, the greater incongruence (mismatch or misalignment) between the job and the person when considering an unsustainable workload predicted burnout, $adjR^2 = .443$, $F(1, 45) = 37.620$, $p < .000$, 95% CI [-.609, -.308]. However, the greater incongruence between the job and the person when combining an unsustainable workload and a perceived failure of community, explained even more variance in burnout, $adjR^2 = .542$, $F(2, 44) = 28.183$, $p < .000$, 95% CIs [-.508, -.208], and [-.378, .090], respectively.

DISENGAGEMENT

Stepwise regression analysis revealed that the greater incongruence (mismatch or misalignment) between the job and the person when considering a failure in community predicted increased levels of disengagement, $adjR^2 = .373$, $F(1, 46) = 29.019$, $p < .000$, 95% CI [-.504, -.292]. However, the greater incongruence when combining failure of community and an unsustainable workload together explained even more variance in levels of disengagement, $R^2 = .510$, $F(2, 198) = 25.459$, $p <. 000$, 95% CI [-.504, -.163], and [-.510, -.151], respectively.

EXHAUSTION

Regression analysis revealed the greater the incongruence (mismatch or misalignment) between the job and the person when considering an unsustainable workload predicted exhaustion, $R^2 = .408$, $F(1, 198) = 33.327$, $p < .000$, 95% CI [-.573, -.277].

TABLE 4
OLBI and Demographic Correlations

	Age	Gender	Race	Marital Status	No. *Children*	Christian
Burnout	-.104	-.078	-.148*	-.053	.068	.135
Disengaged	-.093	-.079	-.126	-.018	.055	.141*
Exhaustion	-.104	-.051	-.125	-.095	.052	.113

Note. N=198. High scores with the OLBI indicate burnout, disengagement, and exhaustion.
**p < .05; ** p < .01.*

ADDITIONAL SIGNIFICANT CORRELATIONS

The OLBI is a 16-item validated scale that utilizes responses ranging from (1) "strongly agree though (4) "strongly disagree." Scores of three or higher indicate the presence of burnout, disengagement, and exhaustion. Analysis did not reveal any significant correlations between the OLBI and participant demographic data when considering age, gender, marital status, number of children.

In an attempt to discover if ethnicity was a factor in contributing to physician burnout, participants were asked to indicate what ethnicity they identified with. Participants were able to choose between: Caucasian, Black or African American, Latino, Asian, Native, American Indian, Pacific Islander, Middle Easter or North African, other, or decline to answer. When participant's ethnicity demographics were separated into two groups: Caucasian (n = 146; 73.7%) and all other participants (n = 52; 26.3%). Analysis revealed Caucasian participants experienced moderate burnout symptoms (r = -.148; p < .05).

In an attempt to discover if religion was a factor in contributing to physician burnout, participants were asked to indicate what religious affiliation they identified with. Participants were asked What is your religious affiliation? Participant data were separated into two groups: Christians (40.9%) and non-Christians (59.1%). Data suggests non-Christians were more likely to be cynical towards patients. Table 4 displays the bivariate correlations between these variables.

The AWS defines an incongruence (mismatch or misalignment) as a low score (3.00 or less) for each subscale (workload, control,

TABLE 5
AWS and Demographic Correlations

	Age	Gender	Race	Marital Status	No. of Children	Christian
Workload	-.026	-.045	.025	.055	-.012	-.142
Control	.211**	.022	.034	-.155*	.172*	-.085
Reward	.108	.063	.043	-.057	.017	-.096
Community	.137	.124	-.074	-.123	.120	-.109
Fairness	.046	.034	.028	-.063	-.038	-.177
Values	.170*	.037	-.050	-.082	.036	-.061

Note. N=198. Low scores with the AWS indicate an incongruence with the person and the job.
**p < .05; ** p< .01.*

TABLE 6

OLBI and Organizational Demographic Correlations

	Scheduling	Off Hours	EHR	Patients/ Day	Org. Stress	Rank	Advanced Degree
Burnout	-.222**	-.135	.192**	.058	-.390**	-.044	-.010
Disengaged	-.238**	-.105	.170*	.076	-.342**	-.033	-.014
Exhaustion	-.139	-.145*	.182*	-.007	-.369**	-.064	.019

Note. N=198. High scores with the OLBI indicate burnout, disengagement, and exhaustion.

**p < .05; ** p < .01.*

reward, community, fairness, and values (Leiter & Maslach, 2011).

Analysis did not reveal any significant correlations between the AWS and participant demographic data when considering gender, race, and religious affiliation. However, analysis revealed a significant positive correlation between a participants age and control ($r(180) = .211$; $p < .001$). This finding suggests that older participants also experienced more autonomy (utilize professional autonomy) in their job. Moreover, analysis revealed a moderate positive correlation ($r = .170$; $p < .05$) between a participants age and values (ideals and motivations that originally attracted them to the job). This finding suggests that older participants also experienced their values to be more aligned with their organization. Table 5 displays the bivariate correlations between these variables.

To further investigate participant demographic data, participants were asked about their marital status. Participant data was separated into two groups: married and non-married. Analysis reveals non-married participants shared a moderately negative correlation with control ($r = -.155$; $p < .05$). This finding suggests non-married participants were more likely to perceive less autonomy in their job. Additionally, participants with more children shared a moderate positive correlation with control ($r = .172$; $p < .05$). This finding suggests participants with more children also experienced more autonomy in their job. Table 5 displays the bivariate correlations between these variables.

In order to determine organizational factors that may contribute to burnout participants were asked Do you have control over scheduling your patients? Answers ranged from 1: Not at all to 5: Very much. Participants scoring 2 or less suggest 52% ($n = 101$) perceived they did not have control over scheduling their patients. Analysis revealed significant negative correlations between the overall OLBI burnout score ($r(193) = -.222$; $p < .001$) and the disengagement subscale ($r(195) = -.238$; $p < .001$) with participants perception of control over scheduling their patients. This finding suggests participants that experienced control over scheduling their patients also experienced less burnout and to have less cynical feelings towards their patients. Table 6 displays the bivariate correlations between these variables.

In order to determine if medical documentation contributed to workplace stress, participants were asked Do you think electronic medical record systems (EHR/EMR) interfere with your interaction with the patient? Answers ranged from 1: Not at all to 5: Very much. Participants scoring 3 or more suggests that 51.5% ($n = 102$) perceived EHR/EMR interfered with their interaction with the patient. Analysis revealed significant positive relationship ($r(193) = .192$; $p < .001$) between burnout and participants responses. This finding suggests participants that perceived HER/EMR interferes with their interaction with their patients also experienced burnout. Moreover, analysis revealed a moderate positive relationship between the OLBI disengagement and exhaustion subscales ($r = .170$; $r = .182$; respectively; $p < .05$). This finding suggests participants experiencing that EHR data entry interferes with their interaction with their patients also experienced moderate disengagement and exhaustion. Table 6 displays the bivariate correlations between these variables.

To determine participants perspective of organizational involvement in helping them cope with stress, participants were asked Does your organization help you cope with stress? Answers ranged from 1: Not at all to 5: Very much. Participants scoring 2 or less suggest that 64.6% ($n = 128$) perceive their organization does not help participant mitigate workplace stress. Analysis revealed significant negative relationship between the participant's perception of organizational efforts to help with stress and the OLBI burnout, disengagement, and exhaustion scores (burnout: $r(193) = -.390$; disengagement: $r(195) = -.342$; exhaustion: $r(194) = -.369$, respectively; $p < .001$). This finding suggests that participants that experienced a lack of organizational assistance with mitigating stress also experienced significant levels of burnout, disengagement, and exhaustion. Table 6 displays the bivariate correlations between these variables.

EHR has solved many problems that existed prior to the introduction of the computer into the exam room, but it has also introduced several unforeseen problems that contribute to burnout (DeChant & Shannon, 2016). Sinsky et al. (2016) reported for every hour a physician spends with their patients, two hours are spent on EHR documentation. Additionally, most of the problems associated with EHR can be attributed to poor software design that make workflows inefficient (DeChant & Shannon, 2016).

Meta-analysis conducted by DeChant et al. (2019) reported that in organizations that provided physicians with a communal space, 74% (n = 23) of the participants said, "access to a common space definitely improved their well-being" (p.11). Moreover, Shanafelt and Noseworthy (2017) identified seven drivers of burnout, and three were associated with organizational factors affecting culture.

In order to determine if having control over patient scheduling may contribute to the incongruence between the participant and their job, participants were asked Do you have control over scheduling your patients? Answers ranged from 1: Not at all to 5: Very much. Participants scoring 4 or greater suggest 28.8% ($n = 57$) perceived they had control over scheduling their patients. Analysis revealed significant positive correlations with control ($r(194) = .529$; $p < .000$); reward ($r(123) = .275$; $p = .002$); community ($r(195) = .185$; $p = .009$); fairness ($r(118) = .266$; $p = .003$); and values ($r(193) = .259$; $p < .000$). This finding suggests participants who experienced more control over scheduling their patients also experienced higher levels of control (professional autonomy); reward

TABLE 7

AWS and Organizational Demographic Correlations

	Scheduling	Off Hours	EHR	Hours/Week	Org. Stress	Rank	Advanced Degree
Workload	.163	.264**	-.267**	-.283**	.430***	-.021	-.231**
Control	.529***	.045	.038	-.076	.330***	.308***	.032
Reward	.275**	.266**	-.046	-.097	.515***	.237**	.011
Community	.185**	.052	-.028	-.117	.433***	.130	.047
Fairness	.266**	.325***	-.077	.005	.562***	.073	-.075
Values	.259***	-.021	-.061	.069	.462***	.185**	.110

Note. N=198. Low scores with the AWS indicate an incongruence with the person and the job.

**p < .05; ** p < .01; *** p < .000*

(intrinsically rewarding); community (quality social support); fairness (treated fairly and with respect); and values (their values aligned with the organization). Table 7 displays the bivariate correlations between these variables.

In order to determine if off-duty requirements may contribute to the incongruence between the participant and their job, participants were asked Does your organization expect you to be available to your patients during your off hours? Answers were separated into Yes or No. Participants scoring Yes suggests 63.1% (n = 125) perceived they were expected to be available during their off hours. Analysis revealed significant positive correlation with workload ($r(124) = .264$; $p = .003$); reward ($r(123) = .266$; $p = .003$); and fairness ($r(118) = .325$; $p < .000$). This finding suggests participants who experienced working for organizations that did not expect them to be available during their off hours also experienced a better match between themselves and the job with workload (manageable workload); reward (intrinsically rewarding); and fairness (treated fairly and with respect).

In order to determine if medical documentation may contribute to the incongruence between the participant and their job, participants were asked Do you think electronic medical record systems (EHR/EMR) interfere with your interaction with the patient? Answers ranged from 1: Not at all to 5: Very much. Participants scoring 4 or greater suggests 51.5% (n = 102) EHR/EMR interferes with their interaction with their patient. Analysis revealed a significant negative correlation with workload ($r(124) = -.267$; $p = .003$). This finding suggests participants that perceive EHR/EMR interferences with their interaction with their patient also experienced an incongruence (mismatch or misalignment) between themselves and the job with workload (unsustainable workload).

In order to determine if time spent at work may contribute to the incongruence between the participant and their job, participants were asked to indicate how many hours they worked per week. Participants were free to indicate their answers. Participants indicated a mean of 52.78 hours per week; a median of 50 hours per week; and a mode of 60 hours per week. Analysis revealed a significant negative correlation between average hours worked per week and workload ($r(122) = -.283$; $p < .001$). This finding suggests participants who worked more hours per week also experienced an incongruence (mismatch or misalignment) with workload (unsustainable workload).

In order to determine if organizations intervened with stress management, which may contribute to the incongruence between the participant and their job, participants were asked Does your organization help you cope with stress? Answers ranged from 1: Not at all to 5: Very much. Participants scoring 2 or less suggests 64.6% (n = 128) perceive their organization does not help them cope with stress. Analysis reveal significant positive correlations with each subscale of the AWS: workload ($r(124) = .430$; $p < .000$); control ($r(194) = .330$; $p < .000$); reward ($r(123) = .515$; $p < .000$); community ($r(195) = .433$; $p < .000$); fairness ($r(118) = .562$; $p < .000$); and values ($r(193) = .462$; $p < .001$). This finding suggests participants who experienced less organizational help with stress also experienced an incongruence (mismatch or misalignment) between themselves and their job with: workload (unsustainable workload); control (lack of professional autonomy); reward (lack of recognition); community (failing social support); fairness (unfairly treated and with disrespect); and values (their values are misaligned with the organization).

In order to determine if a participant's rank within the organization may contribute to the incongruence between the participant and their job, participants were asked What is your rank in the organization? Answers ranged from 1: Medical director; 2: Head of department; 3: Attending physician; 4: Fellow; 5: Chief resident; 6: Senior resident; 7: Junior resident; 8: Intern; or 9: Medical student. Participants indicated 65.7% (n = 130) identified as senior residents; 11.6% (n = 23) identified as a chief resident or above; and 21.2% (n = 42) identified as junior resident or below. Analysis revealed significant positive correlations with participants with higher ranking with control ($r(192) = .308$; $p < .001$); reward ($r(121) = .237$; $p = .008$; and values ($r(191) = .185$; $p = .010$). These findings suggest participants that are ranked higher in their organization also experienced an incongruence in: control (lack of professional autonomy); reward (lack of recognition); and values (their values are misaligned with the organization).

In order to determine if earning an advanced degree (master's degree and above) in addition to earning a medical degree may contribute to the incongruence between the participant and their job, participants were asked to list all advanced degrees (master's and above) in addition to earning their medical degree. Participants were separated into those that achieved an advanced degree from those earning a medical degree. Participants indicated 62.6% (n = 124) earned a master's and above degree in addition to earning a medical degree. Analysis revealed a significant negative correlation with participants earning an advanced degree and workload ($r(124) = -.231$; $p <= .009$). This finding suggests participants that have achieved an advanced degree in addition to their medical degree also experienced more congruence (alignment or fit) between themselves and their job with workload (manageable workload).

LIMITATIONS

THE MBI VS. THE OLBI.

Meta-analysis reported the MBI to be the most common instrument (33%) used to measure burnout among physician driven studies (DeChant et al., 2019). Additionally, the MBI is widely considered to be the industry standard among researchers because of large data sets that can be utilized for: (a) comparing national benchmark data of U.S. physicians; (b) comparisons with the general public; (c) can be used for other health care workers (e.g. nurses); (d) and proven to show correlations with results (Shanafelt & Noseworthy, 2016).

The OLBI differs from the MBI, which measures three aspects of burnout (exhaustion, cynicism, and inefficacy), the OLBI measures exhaustion and disengagement, which was deemed more appropriate given the highly specialized population. However, the ability to compare data from this research with national data could be more beneficial. Additionally, comparing data from this research to how burnout differs from the general population could be useful in making recommendations for interventions.

THE USE OF SOCIAL MEDIA TO RECRUIT PARTICIPANTS

An email campaign (of known physicians) was utilized to collect survey data; however, yielded low participation. Social media such as Facebook and LinkedIn were also utilized to recruit participants; however, the overwhelming number of participants were recruited through Twitter. Since social media can be consumed anonymously, the participant's identity could not be verified if they were in fact practicing physicians. However, email addresses were collected from participants (n = 108; total participants n = 198) for those that wanted to be notified of the results. However, eliminating results from participants that did not provide an email address would be detrimental to this research.

Additionally, participants that were recruited from Twitter were prompted to: participate in a study that is attempting to discover organizational factors that may contribute to physician burnout. Making the participant aware of the intended outcome, could have introduced bias. Future studies should consider more careful phrasing of recruiting messages.

ORGANIZATIONAL FACTORS

This study did not measure key organizational factors such as the type of healthcare organization participants practice medicine (e.g., community hospital, teaching hospital, federal government hospital, non federal psychiatric care, and non federal long-term care). This research would have benefited from determining differences in the prevalence of physician burnout between organizations of different types, if any.

RECOMMENDATIONS

According to this research, the largest contributor to physician burnout is an unsustainable workload followed by a failing community support system. Shanafelt and Noseworthy (2016) have identified nine strategies organizations can utilize to build engagement with physicians, which has been shown to reduce burnout (Maslach, 2017). Of the nine strategies, seven address a failing community, and two address workload reduction or efficiency problems (Shanafelt & Noseworthy, 2016). Moreover, Shanafelt and Noseworthy (2016) argue these strategies must be led by the CEO/C-Suite executives; otherwise, burnout will persist. Healthcare leaders must stop treating patients as profit and start treating patients as people.

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