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Stress Resiliency and Peak Performance in the Law

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The Prevalence of Substance Use and Other Mental Health Concerns Among American Attorneys

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Abstract

Objectives:

Rates of substance use and other mental health concerns among attorneys are relatively unknown, despite the potential for harm that attorney impairment poses to the struggling individuals themselves, and to our communities, government, economy, and society. This study measured the prevalence of these concerns among licensed attorneys, their utilization of treatment services, and what barriers existed between them and the services they may need.

Methods:

A sample of 12,825 licensed, employed attorneys completed surveys, assessing alcohol use, drug use, and symptoms of depression, anxiety, and stress.

Results:

Substantial rates of behavioral health problems were found, with 20.6% screening positive for hazardous, harmful, and potentially alcohol-dependent drinking. Men had a higher proportion of positive screens, and also younger participants and those working in the field for a shorter duration ($P < 0.001$). Age group predicted Alcohol Use Disorders Identification Test scores; respondents 30 years of age or younger were more likely to have a higher score than their older peers ($P < 0.001$). Levels of depression, anxiety, and stress among attorneys were significant, with 28%, 19%, and 23% experiencing symptoms of depression, anxiety, and stress, respectively.

Conclusions:

Attorneys experience problematic drinking that is hazardous, harmful, or otherwise consistent with alcohol use disorders at a higher rate than other professional populations. Mental health distress is also significant. These data underscore the need for greater resources for lawyer assistance programs, and also the expansion of available attorney-specific prevention and treatment interventions.

Keywords: attorneys, mental health, prevalence, substance use

Little is known about the current behavioral health climate in the legal profession. Despite a widespread belief that attorneys experience substance use disorders and other mental health concerns at a high rate, few studies have been undertaken to validate these beliefs empirically or statistically. Although previous research had indicated that those in the legal profession struggle with problematic alcohol use, depression, and anxiety more so than the general population, the issues have largely gone unexamined for decades ([Benjamin et al., 1990](#); [Eaton et al., 1990](#); [Beck et al., 1995](#)). The most recent and also the most widely cited research on these issues comes from a 1990 study involving approximately 1200 attorneys in Washington State ([Benjamin et al., 1990](#)). Researchers found 18% of attorneys were problem drinkers, which they stated was almost twice the 10% estimated prevalence of alcohol abuse and dependence among American adults at that time. They further found that 19% of the Washington lawyers suffered from statistically significant elevated levels of depression, which they contrasted with the then-current depression estimates of 3% to 9% of individuals in Western industrialized countries.

While the authors of the 1990 study called for additional research about the prevalence of alcoholism and depression among practicing US attorneys, a quarter century has passed with no such data emerging. In contrast, behavioral health issues have been regularly studied among physicians, providing a firmer understanding of the needs of that population ([Oreskovich et al., 2012](#)). Although physicians experience substance use disorders at a rate similar to the general population, the public health and safety issues associated with physician impairment have led to intense public and professional interest in the matter ([DuPont et al., 2009](#)).

Although the consequences of attorney impairment may seem less direct or urgent than the threat posed by impaired physicians, they are nonetheless profound and far-reaching. As a licensed profession that influences all aspects of society, economy, and government, levels of impairment among attorneys are of great importance and should therefore be closely evaluated ([Rothstein, 2008](#)). A scarcity of data on the current rates of substance use and mental health concerns among lawyers, therefore, has substantial implications and must be addressed. Although many in the profession have long understood the need for greater resources and support for attorneys struggling with addiction or other mental health concerns, the formulation of cohesive and informed strategies for addressing those issues has been handicapped by the outdated and poorly defined scope of the problem ([Association of American Law Schools, 1994](#)).

Recognizing this need, we set out to measure the prevalence of substance use and mental health concerns among licensed attorneys, their awareness and utilization of treatment services, and what, if any, barriers exist between them and the services they may need. We report those findings here.

METHODS

Procedures

Before recruiting participants to the study, approval was granted by an institutional review board. To obtain a representative sample of attorneys within the United States, recruitment was coordinated through 19 states. Among them, 15 state bar associations and the 2 largest counties of 1 additional state e-mailed the survey to their members. Those bar associations were instructed to send 3 recruitment e-

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mails over a 1-month period to all members who were currently licensed attorneys. Three additional states posted the recruitment announcement to their bar association web sites. The recruitment announcements provided a brief synopsis of the study and past research in this area, described the goals of the study, and provided a URL directing people to the consent form and electronic survey. Participants completed measures assessing alcohol use, drug use, and mental health symptoms. Participants were not asked for identifying information, thus allowing them to complete the survey anonymously. Because of concerns regarding potential identification of individual bar members, IP addresses and geo-location data were not tracked.

Participants

A total of 14,895 individuals completed the survey. Participants were included in the analyses if they were currently employed, and employed in the legal profession, resulting in a final sample of 12,825. Due to the nature of recruitment (eg, e-mail blasts, web postings), and that recruitment mailing lists were controlled by the participating bar associations, it is not possible to calculate a participation rate among the entire population. Demographic characteristics are presented in Table 1. Fairly equal numbers of men (53.4%) and women (46.5%) participated in the study. Age was measured in 6 categories from 30 years or younger, and increasing in 10-year increments to 71 years or older; the most commonly reported age group was 31 to 40 years old. The majority of the participants were identified as Caucasian/White (91.3%).

TABLE 1

Participant Characteristics

71 or older	348 (2.7)
Race/ethnicity	
Caucasian/White	11653 (91.3)
Latino/Hispanic	330 (2.6)
Black/African American (non-Hispanic)	317 (2.5)
Multiracial	189 (1.5)
Asian or Pacific Islander	150 (1.2)
Other	84 (0.7)
Native American	35 (0.3)
Marital status	
Married	8985 (70.2)
Single, never married	1790 (14.0)
Divorced	1107 (8.7)
Cohabiting	462 (3.6)
Life partner	184 (1.4)
Widowed	144 (1.1)
Separated	123 (1.0)
Have children	
Yes	8420 (65.8)
No	4384 (34.2)
Substance use in the past 12 mos *	
Alcohol	10874 (84.1)
Tobacco	2163 (16.9)
Sedatives	2015 (15.7)
Marijuana	1307 (10.2)
Opioids	722 (5.6)
Stimulants	612 (4.8)
Cocaine	107 (0.8)

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*Substance use includes both illicit and prescribed usage.

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As shown in Table 2, the most commonly reported legal professional career length was 10 years or less (34.8%), followed by 11 to 20 years (22.7%) and 21 to 30 years (20.5%). The most common work environment reported was in private firms (40.9%), among whom the most common positions were Senior Partner (25.0%), Junior Associate (20.5%), and Senior Associate (20.3%). Over two-thirds (67.2%) of the sample reported working 41 hours or more per week.

TABLE 2

Professional Characteristics

Characteristic	N (%)
Work environment	
Private firm	5226 (40.9)
Sole practitioner, private practice	2678 (21.0)
In-house government, public, or nonprofit	2500 (19.6)
In-house: corporation or for-profit institution	937 (7.3)
Judicial chambers	750 (7.3)
Other law practice setting	289 (2.3)
College or law school	191 (1.5)
Other setting (not law practice)	144 (1.1)
Bar Administration or Lawyers Assistance Program	55 (0.4)
Firm position	
Clerk or paralegal	128 (2.5)
Junior associate	1063 (20.5)
Senior associate	1052 (20.3)
Junior partner	608 (11.7)
Managing partner	738 (14.2)
Senior partner	1294 (25.0)
Hours per wk	
Under 10 h	238 (1.9)
11–20 h	401 (3.2)
21–30 h	595 (4.7)
31–40 h	2946 (23.2)
41–50 h	5624 (44.2)
51–60 h	2310 (18.2)
61–70 h	474 (3.7)
71 h or more	136 (1.1)
Any litigation	
Yes	9611 (75.0)
No	3197 (25.0)

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Materials

Alcohol Use Disorders Identification Test

The Alcohol Use Disorders Identification Test (AUDIT) ([Babor et al., 2001](#)) is a 10-item self-report instrument developed by the World Health Organization (WHO) to screen for hazardous use, harmful use, and the potential for alcohol dependence. The AUDIT generates scores ranging from 0 to 40. Scores of 8 or higher indicate hazardous or harmful alcohol intake, and also possible dependence ([Babor et al., 2001](#)). Scores are categorized into zones to reflect increasing severity with zone II reflective of hazardous use, zone III indicative of harmful use, and zone IV warranting full diagnostic evaluation for alcohol use disorder. For the purposes of this study, we use the phrase “problematic use” to capture all 3 of the zones related to a positive AUDIT screen.

The AUDIT is a widely used instrument, with well established validity and reliability across a multitude of populations ([Meneses-Gaya et al., 2009](#)). To compare current rates of problem drinking with those found in other populations, AUDIT-C scores were also calculated. The AUDIT-C is a subscale comprised of the first 3 questions of the AUDIT focused on the quantity and frequency of use, yielding a range of scores from 0 to 12. The results were analyzed using a cut-off score of 5 for men and 4 for women, which have been interpreted as a positive screen for alcohol abuse or possible alcohol dependence ([Bradley et al., 1998](#); [Bush et al., 1998](#)). Two other subscales focus on dependence symptoms (eg, impaired control, morning drinking) and harmful use (eg, blackouts, alcohol-related injuries).

Depression Anxiety Stress Scales-21 item version The Depression Anxiety Stress Scales-21 (DASS-21) is a self-report instrument consisting of three 7-item subscales assessing symptoms of depression, anxiety, and stress. Individual items are scored on a 4-point scale (0–3), allowing for subscale scores ranging from 0 to 21 ([Lovibond and Lovibond, 1995](#)). Past studies have shown adequate construct validity and high internal consistency reliability ([Antony et al., 1998](#); [Clara et al., 2001](#); [Crawford and Henry, 2003](#); [Henry and Crawford, 2005](#)).

Drug Abuse Screening Test-10 item version

The short-form Drug Abuse Screening Test-10 (DAST) is a 10-item, self-report instrument designed to screen and quantify consequences of drug use in both a clinical and research setting. The DAST scores range from 0 to 10 and are categorized into low, intermediate, substantial, and severe-concern categories. The DAST-10 correlates highly with both 20-item and full 28-item versions, and has demonstrated reliability and validity ([Yudko et al., 2007](#)).

RESULTS

Descriptive statistics were used to outline personal and professional characteristics of the sample. Relationships between variables were measured through χ^2 tests for independence, and comparisons between groups were tested using Mann-Whitney U tests and Kruskal-Wallis tests.

Alcohol Use

Of the 12,825 participants included in the analysis, 11,278 completed all 10 questions on the AUDIT, with 20.6% of those participants scoring at a level consistent with problematic drinking. The relationships between demographic and professional characteristics and problematic drinking are summarized in Table 3. Men had a significantly higher proportion of positive screens for problematic use compared with women (χ^2 [1, N=11,229]=154.57, $P<0.001$); younger participants had a significantly higher proportion compared with the older age groups (χ^2 [6, N=11,213]=232.15, $P<0.001$); and those working in the field for a shorter duration had a significantly higher proportion compared with those who had worked in the field for longer (χ^2 [4, N=11,252]=230.01, $P<0.001$). Relative to work environment and position, attorneys working in private firms or for the bar association

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had higher proportions than those in other environments (χ^2 [8, N=11,244]=43.75, P<0.001), and higher proportions were also found for those at the junior or senior associate level compared with other positions (χ^2 [6, N=4671]=61.70, P<0.001).

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4736291/>

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TABLE 3

Summary Statistics for Alcohol Use Disorders Identification Test (AUDIT)

	AUDIT Statistics				
	n	M	SD	Problematic %	* P **
Total sample	11,278	5.18	4.53	20.6%	
Sex					
Men	6012	5.75	4.88	25.1%	<0.001
Women	5217	4.52	4.00	15.5%	
Age category (yrs)					
30 or younger	1393	6.43	4.56	31.9%	<0.001
31–40	2877	5.84	4.86	25.1%	
41–50	2345	4.99	4.65	19.1%	
51–60	2548	4.63	4.38	16.2%	
61–70	1753	4.33	3.80	14.4%	
71 or older	297	4.22	3.28	12.1%	
Years in field (yrs)					
0–10	3995	6.08	4.78	28.1%	<0.001
11–20	2523	5.02	4.66	19.2%	
21–30	2272	4.65	4.43	15.6%	
31–40	1938	4.39	3.87	15.0%	
41 or more	524	4.18	3.29	13.2%	
Work environment					
Private firm	4712	5.57	4.59	23.4%	<0.001
Sole practitioner, private practice	2262	4.94	4.72	19.0%	
In-house: government, public, or nonprofit	2198	4.94	4.45	19.2%	
In-house: corporation or for-profit institution	828	4.91	4.15	17.8%	
Judicial chambers	653	4.46	3.83	16.1%	
College or law school	163	4.90	4.66	17.2%	
Bar Administration or Lawyers Assistance Program	50	5.32	4.62	24.0%	
Firm position					
Clerk or paralegal	115	5.05	4.13	16.5%	
Junior associate	964	6.42	4.57	31.1%	

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*The AUDIT cut-off for hazardous, harmful, or potential alcohol dependence was set at a score of 8.

**Comparisons were analyzed using Mann-Whitney U tests and Kruskal-Wallis tests.

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Of the 12,825 participants, 11,489 completed the first 3 AUDIT questions, allowing an AUDIT-C score to be calculated. Among these participants, 36.4% had an AUDIT-C score consistent with hazardous drinking or possible alcohol abuse or dependence. A significantly higher proportion of women (39.5%) had AUDIT-C scores consistent with problematic use compared with men (33.7%) ($\chi^2 [1, N=11,440]=41.93, P<0.001$).

A total of 2901 participants (22.6%) reported that they have felt their use of alcohol or other substances was problematic at some point in their lives; of those that felt their use has been a problem, 27.6% reported problematic use manifested before law school, 14.2% during law school, 43.7% within 15 years of completing law school, and 14.6% more than 15 years after completing law school.

An ordinal regression was used to determine the predictive validity of age, position, and number of years in the legal field on problematic drinking behaviors, as measured by the AUDIT. Initial analyses included all 3 factors in a model to predict whether or not respondents would have a clinically significant total AUDIT score of 8 or higher. Age group predicted clinically significant AUDIT scores; respondents 30 years of age or younger were significantly more likely to have a higher score than their older peers ($\beta=0.52$, Wald [df=1]=4.12, $P<0.001$). Number of years in the field approached significance, with higher AUDIT scores predicted for those just starting out in the legal profession (0–10 yrs of experience) ($\beta=0.46$, Wald [df=1]=3.808, $P=0.051$). Model-based calculated probabilities for respondents aged 30 or younger indicated that they had a mean probability of 0.35 (standard deviation [SD]=0.01), or a 35% chance for scoring an 8 or higher on the AUDIT; in comparison, those respondents who were 61 or older had a mean probability of 0.17 (SD=0.01), or a 17% chance of scoring an 8 or higher.

Each of the 3 subscales of the AUDIT was also investigated. For the AUDIT-C, which measures frequency and quantity of alcohol consumed, age was a strong predictor of subscore, with younger respondents demonstrating significantly higher AUDIT-C scores. Respondents who were 30 years old or younger, 31 to 40 years old, and 41 to 50 years old all had significantly higher AUDIT-C scores than their older peers, respectively ($\beta=1.16$, Wald [df=1]=24.56, $P<0.001$; $\beta=0.86$, Wald [df=1]=16.08, $P<0.001$; and $\beta=0.48$, Wald [df=1]=6.237, $P=0.013$), indicating that younger age predicted higher frequencies of drinking and quantity of alcohol consumed. No other factors were significant predictors of AUDIT-C scores. Neither the predictive model for the dependence subscale nor the harmful use subscale indicated significant predictive ability for the 3 included factors.

Drug Use

Participants were questioned regarding their use of various classes of both licit and illicit substances to provide a basis for further study. Participant use of substances is displayed in Table 1. Of participants who endorsed use of a specific substance class in the past 12 months, those using stimulants had the highest rate of weekly usage (74.1%), followed by sedatives (51.3%), tobacco (46.8%), marijuana (31.0%), and opioids (21.6%). Among the entire sample, 26.7% (n=3419) completed the DAST, with a mean score of 1.97 (SD=1.36). Rates of low, intermediate, substantial, and severe concern were 76.0%, 20.9%, 3.0%, and 0.1%, respectively. Data collected from the DAST were found to not meet the assumptions for more advanced statistical procedures. As a result, no inferences about these data could be made.

Mental Health

Among the sample, 11,516 participants (89.8%) completed all questions on the DASS-21. Relationships between demographic and professional characteristics and depression, anxiety, and stress subscale scores are summarized in Table 4. While men had significantly higher levels of depression ($P<0.05$) on the DASS-21, women had higher levels of anxiety ($P<0.001$) and stress ($P<0.001$). DASS-

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21 anxiety, depression, and stress scores decreased as participants' age or years worked in the field increased ($P < 0.001$). When comparing positions within private firms, more senior positions were generally associated with lower DASS-21 subscale scores ($P < 0.001$). Participants classified as nonproblematic drinkers on the AUDIT had lower levels of depression, anxiety, and stress ($P < 0.001$), as measured by the DASS-21. Comparisons of DASS-21 scores by AUDIT drinking classification are outlined in Table [5](#).

TABLE 4

Summary Statistics for Depression Anxiety Stress Scale (DASS-21)

	DASS Depression				DASS Anxiety				DASS Stress			
	n	M	SD	P *	n	M	SD	P *	n	M	SD	P *
Total sample	12300	3.51	4.29		12277	1.96	2.82		12271	4.97	4.07	
Sex												
Men	6518	3.67	4.46	<0.05	6515	1.84	2.79	<0.001	6514	4.75	4.08	<0.001
Women	5726	3.34	4.08		5705	2.10	2.86		5705	5.22	4.03	
Age category (yrs)												
30 or younger	1476	3.71	4.15		1472	2.62	3.18		1472	5.54	4.61	
31–40	3112	3.96	4.50		3113	2.43	3.15		3107	5.99	4.31	
41–50	2572	3.83	4.54	<0.001	2565	2.03	2.92	<0.001	2559	5.36	4.12	<0.001
51–60	2808	3.41	4.27		2801	1.64	2.50		2802	4.47	3.78	
61–70	1927	2.63	3.65		1933	1.20	2.06		1929	3.46	3.27	
71 or older	326	2.03	3.16		316	0.95	1.73		325	2.72	3.21	
Years in field												
0–10 yrs	4330	3.93	4.45		4314	2.51	3.13		4322	5.82	4.24	
11–20 yrs	2800	3.81	4.48		2800	2.09	3.01		2777	5.45	4.20	
21–30 yrs	2499	3.37	4.21	<0.001	2509	1.67	2.59	<0.001	2498	4.46	3.79	<0.001
31–40 yrs	2069	2.81	3.84		2063	1.22	1.98		2084	3.74	3.43	
41 or more yrs	575	1.95	3.02		564	1.01	1.94		562	2.81	3.01	
Work environment												
Private firm	5028	3.47	4.17		5029	2.01	2.85		5027	5.11	4.06	
Sole practitioner, private practice	2568	4.27	4.84		2563	2.18	3.08		2567	5.22	4.34	
In-house: government, public, or nonprofit	2391	3.45	4.26		2378	1.91	2.69		2382	4.91	3.97	
In-house: corporation or for- profit institution	900	2.96	3.66	<0.001	901	1.84	2.80	<0.001	898	4.74	3.97	<0.001
Judicial chambers	717	2.39	3.50		710	1.31	2.19		712	3.80	3.44	
College or law	182	2.90	3.72		188	1.43	2.09		183	4.48	3.61	

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*Comparisons were analyzed using Mann-Whitney U tests and Kruskal-Wallis tests.

TABLE 5

Relationship AUDIT Drinking Classification and DASS-21 Mean Scores

		Nonproblematic	Problematic [*]	P ^{**}
		M (SD)	M (SD)	
DASS-21 total score		9.36 (8.98)	14.77 (11.06)	<0.001
DASS-21 subscale scores	Depression	3.08 (3.93)	5.22 (4.97)	<0.001
	Anxiety	1.71 (2.59)	2.98 (3.41)	<0.001
	Stress	4.59 (3.87)	6.57 (4.38)	<0.001

AUDIT, Alcohol Use Disorders Identification Test; DASS-21, Depression Anxiety Stress Scales-21.

^{*}The AUDIT cut-off for hazardous, harmful, or potential alcohol dependence was set at a score of 8.

^{**}Means were analyzed using Mann-Whitney U tests.

Participants were questioned regarding any past mental health concerns over the course of their legal career, and provided self-report endorsement of any specific mental health concerns they had experienced. The most common mental health conditions reported were anxiety (61.1%), followed by depression (45.7%), social anxiety (16.1%), attention deficit hyperactivity disorder (12.5%), panic disorder (8.0%), and bipolar disorder (2.4%). In addition, 11.5% of the participants reported suicidal thoughts at some point during their career, 2.9% reported self-injurious behaviors, and 0.7% reported at least 1 prior suicide attempt.

Treatment Utilization and Barriers to Treatment

Of the 6.8% of the participants who reported past treatment for alcohol or drug use (n=807), 21.8% (n=174) reported utilizing treatment programs specifically tailored to legal professionals. Participants who had reported prior treatment tailored to legal professionals had significantly lower mean AUDIT scores (M=5.84, SD=6.39) than participants who attended a treatment program not tailored to legal professionals (M=7.80, SD=7.09, P<0.001).

Participants who reported prior treatment for substance use were questioned regarding barriers that impacted their ability to obtain treatment services. Those reporting no prior treatment were questioned regarding hypothetical barriers in the event they were to need future treatment or services. The 2 most common barriers were the same for both groups: not wanting others to find out they needed help (50.6% and 25.7% for the treatment and nontreatment groups, respectively), and concerns regarding privacy or confidentiality (44.2% and 23.4% for the groups, respectively).

DISCUSSION

Our research reveals a concerning amount of behavioral health problems among attorneys in the United States. Our most significant findings are the rates of hazardous, harmful, and potentially alcohol dependent drinking and high rates of depression and anxiety symptoms. We found positive AUDIT screens for 20.6% of our sample; in comparison, 11.8% of a broad, highly educated workforce screened positive on the same measure ([Matano et al., 2003](#)). Among physicians and surgeons, [Oreskovich et al.](#)

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(2012) found that 15% screened positive on the AUDIT-C subscale focused on the quantity and frequency of use, whereas 36.4% of our sample screened positive on the same subscale. While rates of problematic drinking in our sample are generally consistent with those reported by Benjamin et al. (1990) in their study of attorneys (18%), we found considerably higher rates of mental health distress.

We also found interesting differences among attorneys at different stages of their careers. Previous research had demonstrated a positive association between the increased prevalence of problematic drinking and an increased amount of years spent in the profession (Benjamin et al., 1990). Our findings represent a direct reversal of that association, with attorneys in the first 10 years of their practice now experiencing the highest rates of problematic use (28.9%), followed by attorneys practicing for 11 to 20 years (20.6%), and continuing to decrease slightly from 21 years or more. These percentages correspond with our findings regarding position within a law firm, with junior associates having the highest rates of problematic use, followed by senior associates, junior partners, and senior partners. This trend is further reinforced by the fact that of the respondents who stated that they believe their alcohol use has been a problem (23%), the majority (44%) indicated that the problem began within the first 15 years of practice, as opposed to those who indicated the problem started before law school (26.7%) or after more than 15 years in the profession (14.5%). Taken together, it is reasonable to surmise from these findings that being in the early stages of one's legal career is strongly correlated with a high risk of developing an alcohol use disorder. Working from the assumption that a majority of new attorneys will be under the age of 40, that conclusion is further supported by the fact that the highest rates of problematic drinking were present among attorneys under the age of 30 (32.3%), followed by attorneys aged 31 to 40 (26.1%), with declining rates reported thereafter.

Levels of depression, anxiety, and stress among attorneys reported here are significant, with 28%, 19%, and 23% experiencing mild or higher levels of depression, anxiety, and stress, respectively. In terms of career prevalence, 61% reported concerns with anxiety at some point in their career and 46% reported concerns with depression. Mental health concerns often co-occur with alcohol use disorders (Gianoli and Petrakis, 2013), and our study reveals significantly higher levels of depression, anxiety, and stress among those screening positive for problematic alcohol use. Furthermore, these mental health concerns manifested on a similar trajectory to alcohol use disorders, in that they generally decreased as both age and years in the field increased. At the same time, those with depression, anxiety, and stress scores within the normal range endorsed significantly fewer behaviors associated with problematic alcohol use.

While some individuals may drink to cope with their psychological or emotional problems, others may experience those same problems as a result of their drinking. It is not clear which scenario is more prevalent or likely in this population, though the ubiquity of alcohol in the legal professional culture certainly demonstrates both its ready availability and social acceptability, should one choose to cope with their mental health problems in that manner. Attorneys working in private firms experience some of the highest levels of problematic alcohol use compared with other work environments, which may underscore a relationship between professional culture and drinking. Irrespective of causation, we know that co-occurring disorders are more likely to remit when addressed concurrently (Gianoli and Petrakis, 2013). Targeted interventions and strategies to simultaneously address both the alcohol use and mental health of newer attorneys warrant serious consideration and development if we hope to increase overall well being, longevity, and career satisfaction.

Encouragingly, many of the same attorneys who seem to be at risk for alcohol use disorders are also those who should theoretically have the greatest access to, and resources for, therapy, treatment, and other support. Whether through employer-provided health plans or increased personal financial means, attorneys in private firms could have more options for care at their disposal. However, in light of the

pervasive fears surrounding their reputation that many identify as a barrier to treatment, it is not at all clear that these individuals would avail themselves of the resources at their disposal while working in the competitive, high-stakes environment found in many private firms.

Compared with other populations, we find the significantly higher prevalence of problematic alcohol use among attorneys to be compelling and suggestive of the need for tailored, profession-informed services. Specialized treatment services and profession-specific guidelines for recovery management have demonstrated efficacy in the physician population, amounting to a level of care that is quantitatively and qualitatively different and more effective than that available to the general public (DuPont et al., 2009).

Our study is subject to limitations. The participants represent a convenience sample recruited through e-mails and news postings to state bar mailing lists and web sites. Because the participants were not randomly selected, there may be a voluntary response bias, over-representing individuals that have a strong opinion on the issue. Additionally, some of those that may be currently struggling with mental health or substance use issues may have not noticed or declined the invitation to participate. Because the questions in the survey asked about intimate issues, including issues that could jeopardize participants' legal careers if asked in other contexts (eg, illicit drug use), the participants may have withheld information or responded in a way that made them seem more favorable. Participating bar associations voiced a concern over individual members being identified based on responses to questions; therefore no IP addresses or geo-location data were gathered. However, this also raises the possibility that a participant took the survey more than once, although there was no evidence in the data of duplicate responses. Finally, and most importantly, it must be emphasized that estimations of problematic use are not meant to imply that all participants in this study deemed to demonstrate symptoms of alcohol use or other mental health disorders would individually meet diagnostic criteria for such disorders in the context of a structured clinical assessment.

CONCLUSIONS

Attorneys experience problematic drinking that is hazardous, harmful, or otherwise generally consistent with alcohol use disorders at a rate much higher than other populations. These levels of problematic drinking have a strong association with both personal and professional characteristics, most notably sex, age, years in practice, position within firm, and work environment. Depression, anxiety, and stress are also significant problems for this population and most notably associated with the same personal and professional characteristics. The data reported here contribute to the fund of knowledge related to behavioral health concerns among practicing attorneys and serve to inform investments in lawyer assistance programs and an increase in the availability of attorney-specific treatment. Greater education aimed at prevention is also indicated, along with public awareness campaigns within the profession designed to overcome the pervasive stigma surrounding substance use disorders and mental health concerns. The confidential nature of lawyer-assistance programs should be more widely publicized in an effort to overcome the privacy concerns that may create barriers between struggling attorneys and the help they need.

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Footnotes

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The Prevalence of Substance Use and Other Mental Health Concerns Among American Attorneys

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Conflicts of interest: Linda Albert is an employee of the State Bar of Wisconsin. Remaining authors are employees of the Hazelden Betty Ford Foundation. No conflicts of interest are identified.

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The Prevalence of Substance Use and Other Mental Health Concerns Among American Attorneys

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Big Law Leaders Say Stress Is Main Cause of Addiction and Mental Health Problems

Stress is a common experience for lawyers, and if the go-to solution for coping with it is drinking or using drugs, they are setting themselves up for trouble.

By **Patrick Krill** | October 01, 2018 at 12:12 PM

In our survey of Am Law 200 leaders about substance abuse and mental health problems in large law firms, we asked them to opine about the causes. After all, who better to understand the situation on the ground than those who regularly encounter these problems among their lawyers?

Stress is #1 Cause of Substance Abuse & Mental Illness in BigLaw, According to BigLaw Lawyers



FULL ARTICLE:

<https://www.law.com/2018/10/01/big-law-leaders-say-stress-is-main-cause-of-addiction-and-mental-health-problems/>

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NATIONAL TASK FORCE ON LAWYER WELL-BEING

Creating a Movement To Improve
Well-Being in the Legal Profession

August 14, 2017

Enclosed is a copy of *The Path to Lawyer Well-Being: Practical Recommendations for Positive Change* from the National Task Force on Lawyer Well-Being. The Task Force was conceptualized and initiated by the ABA Commission on Lawyer Assistance Programs (CoLAP), the National Organization of Bar Counsel (NOBC), and the Association of Professional Responsibility Lawyers (APRL). It is a collection of entities within and outside the ABA that was created in August 2016. Its participating entities currently include the following: ABA CoLAP; ABA Standing Committee on Professionalism; ABA Center for Professional Responsibility; ABA Young Lawyers Division; ABA Law Practice Division Attorney Wellbeing Committee; The National Organization of Bar Counsel; Association of Professional Responsibility Lawyers; National Conference of Chief Justices; and National Conference of Bar Examiners. Additionally, CoLAP was a co-author of the 2016 ABA CoLAP and Hazelden Betty Ford Foundation's study of mental health and substance use disorders among lawyers and of the 2016 Survey of Law Student Well-Being.

To be a good lawyer, one has to be a healthy lawyer. Sadly, our profession is falling short when it comes to well-being. The two studies referenced above reveal that too many lawyers and law students experience chronic stress and high rates of depression and substance use. These findings are incompatible with a sustainable legal profession, and they raise troubling implications for many lawyers' basic competence. This research suggests that the current state of lawyers' health cannot support a profession dedicated to client service and dependent on the public trust.

The legal profession is already struggling. Our profession confronts a dwindling market share as the public turns to more accessible, affordable alternative legal service providers. We are at a crossroads. To maintain public confidence in the profession, to meet the need for innovation in how we deliver legal services, to increase access to justice, and to reduce the level of toxicity that has allowed mental health and substance use disorders to fester among our colleagues, we have to act now. Change will require a wide-eyed and candid assessment of our members' state of being, accompanied by courageous commitment to re-envisioning what it means to live the life of a lawyer.

This report's recommendations focus on five central themes: (1) identifying stakeholders and the role each of us can play in reducing the level of toxicity in our profession, (2) eliminating the stigma associated with help-seeking behaviors, (3) emphasizing that well-being is an indispensable part of a lawyer's duty of competence, (4) educating lawyers, judges, and law students on lawyer well-being issues, and (5) taking small, incremental steps to change how law is practiced and how lawyers are regulated to instill greater well-being in the profession.

The members of this Task Force make the following recommendations after extended deliberation. We recognize this number of recommendations may seem overwhelming at first. Thus we also provide proposed state action plans with simple checklists. These help each stakeholder inventory their current system and explore the recommendations relevant to their group. We invite you to read this report, which sets forth the basis for why the legal profession is at a tipping point, and we present these recommendations and action plans for building a more positive future. We call on you to take action and hear our clarion call. The time is now to use your experience, status, and leadership to construct a profession built on greater well-being, increased competence, and greater public trust.

Sincerely,

Bree Buchanan, Esq.
Task Force Co-Chair
Director
Texas Lawyers Assistance Program
State Bar of Texas

James C. Coyle, Esq.
Task Force Co-Chair
Attorney Regulation Counsel
Colorado Supreme Court

"Lawyers, judges and law students are faced with an increasingly competitive and stressful profession. Studies show that substance use, addiction and mental disorders, including depression and thoughts of suicide—often unrecognized—are at shockingly high rates. As a consequence the National Task Force on Lawyer Well-being, under the aegis of CoLAP (the ABA Commission on Lawyer Assistance programs) has been formed to promote nationwide awareness, recognition and treatment. This Task Force deserves the strong support of every lawyer and bar association."

*David R Brink**
Past President
American Bar Association

* David R. Brink (ABA President 1981-82) passed away in July 2017 at the age of 97. He tirelessly supported the work of lawyer assistance programs across the nation, and was a beacon of hope in the legal profession for those seeking recovery.

THE PATH TO LAWYER WELL-BEING:

Practical Recommendations
For Positive Change

[THE REPORT OF THE
NATIONAL TASK FORCE ON
LAWYER WELL-BEING]

August 2017

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Task Force Member Biographies and Acknowledgments

INTRODUCTION

THE PATH TO LAWYER WELL-BEING:

Practical Recommendations For Positive Change

Although the legal profession has known for years that many of its students and practitioners are languishing, far too little has been done to address it. Recent studies show we can no longer continue to ignore the problems. In 2016, the American Bar Association (ABA) Commission on Lawyer Assistance Programs and Hazelden Betty Ford Foundation published their study of nearly 13,000 currently-practicing lawyers [the “Study”]. It found that between 21 and 36 percent qualify as problem drinkers, and that approximately 28 percent, 19 percent, and 23 percent are struggling with some level of depression, anxiety, and stress, respectively.¹ The parade of difficulties also includes suicide, social alienation, work addiction, sleep deprivation, job dissatisfaction, a “diversity crisis,” complaints of work-life conflict, incivility, a narrowing of values so that profit predominates, and negative public perception.² Notably, the Study found that younger lawyers in the first ten years of practice and those working in private firms experience the highest rates of problem drinking and depression. The budding impairment of many of the future generation of lawyers should be alarming to everyone. Too many face less productive, less satisfying, and more troubled career paths.

Additionally, 15 law schools and over 3,300 law students participated in the Survey of Law Student Well-Being, the results of which were released in 2016.³ It found

that 17 percent experienced some level of depression, 14 percent experienced severe anxiety, 23 percent had mild or moderate anxiety, and six percent reported serious suicidal thoughts in the past year. As to alcohol use, 43 percent reported binge drinking at least once in the prior two weeks and nearly one-quarter (22 percent) reported binge-drinking two or more times during that period. One-quarter fell into the category of being at risk for alcoholism for which further screening was recommended.

The results from both surveys signal an elevated risk in the legal community for mental health and substance use disorders tightly intertwined with an alcohol-based social culture. The analysis of the problem cannot end there, however. The studies reflect that the majority of lawyers and law students do not have a mental health or substance use disorder. But that does not mean that they’re thriving. Many lawyers experience a “profound ambivalence” about their work,⁴ and different sectors of the profession vary in their levels of satisfaction and well-being.⁵

Given this data, lawyer well-being issues can no longer be ignored. Acting for the benefit of lawyers who are functioning below their ability and for those suffering due to substance use and mental health disorders, the National Task Force on Lawyer Well-Being urges our profession’s leaders to act.

¹P. R. Krill, R. Johnson, & L. Albert, *The Prevalence of Substance Use and Other Mental Health Concerns Among American Attorneys*, 10 J. ADDICTION MED. 46 (2016).

²A. M. Brafford, *Building the Positive Law Firm: The Legal Profession At Its Best* (August 1, 2014) (Master’s thesis, Univ. Pa., on file with U. Pa. Scholarly Commons Database), available at http://repository.upenn.edu/mapp_capstone/62/.

³J. M. Organ, D. Jaffe, & K. Bender, *Suffering in Silence: The Survey of Law Student Well-Being and the Reluctance of Law Students to Seek Help for Substance Use and Mental Health Concerns*, 66 J. LEGAL EDUC. 116 (2016).

⁴See D. L. Chambers, *Overstating the Satisfaction of Lawyers*, 39 LAW & SOC. INQUIRY 1 (2013).

⁵J. M. Organ, *What Do We Know About the Satisfaction/Dissatisfaction of Lawyers? A Meta-Analysis of Research on Lawyer Satisfaction and Well-Being*, 8 U. ST. THOMAS L. J. 225 (2011); L. S. Krieger & K. M. Sheldon, *What Makes Lawyers Happy? Transcending the Anecdotes with Data from 6200 Lawyers*, 83 GEO. WASH. L. REV. 554 (2015).

REASONS TO TAKE ACTION

We offer three reasons to take action: organizational effectiveness, ethical integrity, and humanitarian concerns.

First, lawyer well-being contributes to organizational success—in law firms, corporations, and government entities. If cognitive functioning is impaired as explained above, legal professionals will be unable to do their best work. For law firms and corporations, lawyer health is an important form of human capital that can provide a competitive advantage.⁶

For example, job satisfaction predicts retention and performance.⁷ Gallup Corporation has done years of research showing that worker well-being in the form of engagement is linked to a host of organizational success factors, including lower turnover, high client satisfaction,

and higher productivity and profitability. The Gallup research also shows that few organizations fully benefit from their human capital because most employees (68 percent) are not engaged.⁸ Reducing turnover is especially important for law firms, where turnover rates can be high. For example, a 2016 survey by Law360 found that over 40 percent of lawyers reported that they were likely or very likely to leave their current law firms in the next year.⁹ This high turnover rate for law firms is expensive—with estimated costs for larger firms of \$25 million every year.¹⁰ In short, enhancing lawyer health and well-being is good business and makes sound financial sense.

Second, lawyer well-being influences ethics and professionalism. Rule 1.1 of the ABA's Model Rules of Professional Conduct requires lawyers to “provide competent representation.” Rule 1.3 requires diligence in client representation, and Rules 4.1 through 4.4 regulate working with people other than clients. Minimum competence is critical to protecting clients and allows lawyers to avoid discipline. But it will not enable them to live up to the aspirational goal articulated in the Preamble to the ABA's Model Rules of Professional Conduct, which calls lawyers to “strive to attain the highest level of skill, to improve the law and the legal profession and to exemplify the legal profession's ideals of public service.”

Troubled lawyers can struggle with even minimum competence. At least one author suggests that 40 to 70 percent of disciplinary proceedings and malpractice claims against lawyers involve substance use or depression, and often both.¹¹ This can be explained, in part, by declining mental capacity due to these conditions. For example, major depression is associated



Reasons to Improve Attorney Well-Being

- ✓ Good for business
- ✓ Good for clients
- ✓ The right thing to do

⁶ C. Keyes & J. Grzywacz, *Health as a Complete State: The Added Value in Work Performance and Healthcare Costs*, 47 J. OCCUPATIONAL & ENVTL. MED. 523 (2005).

⁷ T. A. Judge & R. Klinger, *Promote Job Satisfaction through Mental Challenge*, in HANDBOOK OF PRINCIPLES OF ORGANIZATIONAL BEHAV. (E. A. Locke ed., 2009).

⁸ J. K. HARTER, F. L. SCHMIDT, E. A. KILLHAM, & J. W. ASPLUND, Q12 META-ANALYSIS, GALLUP CONSULTING (2006), https://strengths.gallup.com/private/resources/q12meta-analysis_flyer_gen_08%2008_bp.pdf; see also Brafford, *supra* note 2, for a summary of studies linking engagement and other positive employee states to business success factors.

⁹ C. Violante, *Law360's 2016 Lawyer Satisfaction Survey: By the Numbers*, Law360, Sept. 4, 2016, <https://www.law360.com/articles/833246/law360-s-2016-lawyer-satisfaction-survey-by-the-numbers>.

¹⁰ M. Levin & B. MacEwen, *Assessing Lawyer Traits & Finding a Fit for Success Introducing the Sheffield Legal Assessment* (2014) (unpublished), available at <http://therightprofile.com/wp-content/uploads/Attorney-Trait-Assessment-Study-Whitepaper-from-The-Right-Profile.pdf> (discussing associate turnover statistics and estimated cost of turnover in large law firms).

¹¹ D. B. Marlowe, *Alcoholism, Symptoms, Causes & Treatments*, in STRESS MANAGEMENT FOR LAWYERS 104-130 (Amiram Elwork ed., 2d ed., 1997) (cited in M. A. Silver, *Substance Abuse, Stress, Mental Health and The Legal Profession*, NEW YORK STATE LAW ASSISTANT TRUST (2004), available at <http://www.nylat.org/documents/courseinabox.pdf>).

with impaired executive functioning, including diminished memory, attention, and problem-solving. Well-functioning executive capacities are needed to make good decisions and evaluate risks, plan for the future, prioritize and sequence actions, and cope with new situations. Further, some types of cognitive impairment persist in up to 60 percent of individuals with depression even after mood symptoms have diminished, making prevention strategies essential.¹² For alcohol abuse, the majority of abusers (up to 80 percent) experience mild to severe cognitive impairment.¹³ Deficits are particularly severe in executive functions, especially in problem-solving, abstraction, planning, organizing, and working memory—core features of competent lawyering.

Third, from a humanitarian perspective, promoting well-being is the right thing to do. Untreated mental health and substance use disorders ruin lives and careers. They affect too many of our colleagues. Though our profession prioritizes individualism and self-sufficiency, we all contribute to, and are affected by, the collective legal culture. Whether that culture is toxic or sustaining is up to us. Our interdependence creates a joint responsibility for solutions.

DEFINING “LAWYER WELL-BEING”

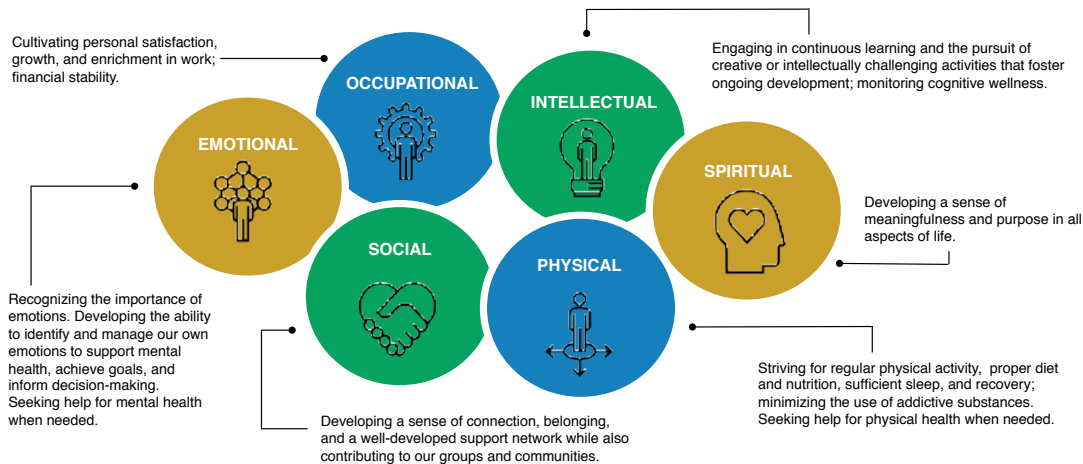
We define lawyer well-being as a continuous process whereby lawyers seek to thrive in each of the following areas: emotional health, occupational pursuits, creative or intellectual endeavors, sense of spirituality or greater purpose in life, physical health, and social connections with others. Lawyer well-being is part of a lawyer’s

“Well-Being”: A Continuous process toward thriving across all life dimensions.

ethical duty of competence. It includes lawyers’ ability to make healthy, positive work/life choices to assure not only a quality of life within their families and communities, but also to help them make responsible decisions for their clients. It includes maintaining their own long term well-being. This definition highlights that complete health

Defining Lawyer Well-Being

A continuous process in which lawyers strive for thriving in each dimension of their lives:



¹²P. L. Rock, J. P. Roiser, W. J. Riedel, A. D. Blackwell, *A Cognitive Impairment in Depression: A Systematic Review and Meta-Analysis*, 44 PSYCHOL. MED. 2029 (2014); H. R. Snyder, *Major Depressive Disorder is Associated with Broad Impairments on Neuropsychological Measures of Executive Function: A Meta-Analysis and Review*, 139 PSYCHOL. BULL. 81 (2013).

¹³C. Smeraldi, S. M. Angelone, M. Movalli, M. Cavicchioli, G. Mazza, A. Notaristefano, & C. Maffei, *Testing Three Theories of Cognitive Dysfunction in Alcohol Abuse*, 21 J. PSYCHOPATHOLOGY 125 (2015).¹⁴The WHO’s definition of “health” can be found at: <http://www.who.int/about/mission/en>. The definition of “mental health” can be found at: http://www.who.int/features/factfiles/mental_health/en/.

is not defined solely by the absence of illness; it includes a positive state of wellness.

To arrive at this definition, the Task Force consulted other prominent well-being definitions and social science research, which emphasize that well-being is not limited to: (1) an absence of illness, (2) feeling happy all the time, or (3) intra-individual processes—context matters. For example, the World Health Organization (WHO) defines “health” as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.” It defines “mental health” as “a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community.”¹⁴

Social science research also emphasizes that “well-being” is not defined solely by an absence of dysfunction; but nor is it limited to feeling “happy” or filled with positive emotions. The concept of well-being in social science research is multi-dimensional and includes, for example, engagement in interesting activities, having close relationships and a sense of belonging, developing confidence through mastery, achieving goals that matter to us, meaning and purpose, a sense of autonomy and control, self-acceptance, and personal growth. This multi-dimensional approach underscores that a positive state of well-being is not synonymous with feeling happy or experiencing positive emotions. It is much broader.

Another common theme in social science research is that well-being is not just an intra-personal process: context powerfully influences it.¹⁵ Consistent with this view, a study of world-wide survey data found that five factors constitute the key elements of well-being: career, social relationships, community, health, and finances.¹⁶

The Task Force chose the term “well-being” based on the view that the terms “health” or “wellness” connote only physical health or the absence of illness. Our definition of “lawyer well-being” embraces the multi-dimensional

concept of mental health and the importance of context to complete health.

OUR CALL TO ACTION

The benefits of increased lawyer well-being are compelling and the cost of lawyer impairment are too great to ignore. There has never been a better or more important time for all sectors of the profession to get serious about the substance use and mental health of ourselves and those around us. The publication of this report, in and of itself, serves the vital role of bringing conversations about these conditions out in the open. In the following pages, we present recommendations for many stakeholders in the legal profession including the judiciary, regulators, legal employers, law schools, bar associations, lawyers’ professional liability carriers, and lawyer assistance programs. The recommendations revolve around five core steps intended to build a more sustainable culture:

- (1) Identifying stakeholders and the role that each of us can play in reducing the level of toxicity in our profession.
- (2) Ending the stigma surrounding help-seeking behaviors. This report contains numerous recommendations to combat the stigma that seeking help will lead to negative professional consequences.
- (3) Emphasizing that well-being is an indispensable part of a lawyer’s duty of competence. Among the report’s recommendations are steps stakeholders can take to highlight the tie-in between competence and well-being. These include giving this connection formal recognition through modifying the Rules of Professional Conduct or their comments to reference well-being.
- (4) Expanding educational outreach and programming on well-being issues. We need to educate lawyers, judges, and law students on well-being issues. This includes instruction in recognizing mental health and

¹⁴The WHO’s definition of “health” can be found at: <http://www.who.int/about/mission/en>. The definition of “mental health” can be found at: http://www.who.int/features/factfiles/mental_health/en/

¹⁵E.g., I. Prilleltensky, S. Dietz, O. Prilleltensky, N. D. Myers, C. L. Rubenstein, Y. Jin, & A. McMahon, *Assessing Multidimensional Well-Being: Development and Validation of the I-COPPE Scale*, 43 J. CMTY. PSYCHOL. 199 (2015).

¹⁶T. RATH & J. HARTER, WELL-BEING: THE FIVE ESSENTIAL ELEMENTS (2010).

substance use disorders as well as navigating the practice of law in a healthy manner. To implement this recommendation effectively, more resources need to be devoted to promoting well-being.

- (5) Changing the tone of the profession one small step at a time. This report contains a number of small-scale recommendations, such as allowing lawyers to earn continuing legal education (CLE) credit for well-being workshops or de-emphasizing alcohol at bar association social events. These small steps can start the process necessary to place health, resilience, self-care, and helping others at the forefront of what it means to be a lawyer. Collectively, small steps can lead to transformative cultural change in a profession that has always been, and will remain, demanding.

Historically, law firms, law schools, bar associations, courts, and malpractice insurers have taken a largely hands-off approach to these issues. They have dealt with them only when forced to because of impairment that can no longer be ignored. The dedication and hard work of lawyer assistance programs aside, we have not done enough to help, encourage, or require lawyers to be, get, or stay well. However, the goal of achieving increased lawyer well-being is within our collective reach. The time to redouble our efforts is now.

RECOMMENDATIONS

Below, the Task Force provides detailed recommendations for minimizing lawyer dysfunction, boosting well-being, and reinforcing the importance of well-being to competence and excellence in practicing law. This section has two main parts. Part I provides general recommendations for all stakeholders in the legal community. Part II provides recommendations tailored to a specific stakeholder: (1) judges, (2) regulators, (3) legal employers, (4) law schools, (5) bar associations, (6) lawyers' professional liability carriers, and (7) lawyer assistance programs.

RECOMMENDATIONS FOR ALL STAKEHOLDERS



"None of us got where we are solely by pulling ourselves up by our bootstraps. We got there because somebody bent down and helped us pick up our boots." — Thurgood Marshall

First, we recommend strategies for all stakeholders in the legal profession to play a part in the transformational process aimed at developing a thriving legal profession.

1. ACKNOWLEDGE THE PROBLEMS AND TAKE RESPONSIBILITY.

Every sector of the legal profession must support lawyer well-being. Each of us can take a leadership role within our own spheres to change the profession's mindset from passive denial of problems to proactive support for change. We have the capacity to make a difference.

For too long, the legal profession has turned a blind eye to widespread health problems.

For too long, the legal profession has turned a blind eye to widespread health problems. Many in the legal profession have behaved, at best, as if their colleagues' well-being is none of their business. At worst, some appear to believe that supporting well-being will harm professional success. Many also appear to believe that lawyers' health problems are solely attributable to their own personal failings for which they are solely responsible.

As to the long-standing psychological distress and substance use problems, many appear to believe that the establishment of lawyer assistance programs—a

necessary but not sufficient step toward a solution—has satisfied any responsibility that the profession might have. Lawyer assistance programs have made incredible strides; however, to meaningfully reduce lawyer distress, enhance well-being, and change legal culture, all corners of the legal profession need to prioritize lawyer health and well-being. It is not solely a job for lawyer assistance programs. Each of us shares responsibility for making it happen.

2. USE THIS REPORT AS A LAUNCH PAD FOR A PROFESSION-WIDE ACTION PLAN.

All stakeholders must lead their own efforts aimed at incorporating well-being as an essential component of practicing law, using this report as a launch pad. Changing the culture will not be easy. Critical to this complex endeavor will be the development of a National Action Plan and state-level action plans that continue the effort started in this report. An organized coalition will be necessary to plan, fund, instigate, motivate, and sustain long-term change. The coalition should include, for example, the Conference of Chief Justices, the National Organization of Bar Counsel, the Association of Professional Responsibility Lawyers, the ABA, state bar associations as a whole and specific divisions (young lawyers, lawyer well-being, senior lawyers, etc.), the Commission on Lawyer Assistance Programs, state lawyer assistance programs, other stakeholders that have contributed to this report, and many others.

3. LEADERS SHOULD DEMONSTRATE A PERSONAL COMMITMENT TO WELL-BEING.

Policy statements alone do not shift culture. Broad-scale change requires buy-in and role modeling from top

¹⁷E. SCHEIN, ORGANIZATIONAL CULTURE AND LEADERSHIP (2010); R. R. Sims & J. Brinkmann, *Leaders As Moral Role Models*, 35 J. BUS. ETHICS 327 (2002).

leadership.¹⁷ Leaders in the courts, regulators' offices, legal employers, law schools, and bar associations will be closely watched for signals about what is expected. Leaders can create and support change through their own demonstrated commitment to core values and well-being in their own lives and by supporting others in doing the same.¹⁸

4. FACILITATE, DESTIGMATIZE, AND ENCOURAGE HELP-SEEKING BEHAVIORS.

All stakeholders must take steps to minimize the stigma of mental health and substance use disorders because the stigma prevents lawyers from seeking help.

Research has identified multiple factors that can hinder seeking help for mental health conditions: (1) failure to recognize symptoms; (2) not knowing how to identify or access appropriate treatment or believing it to be a hassle to do so; (3) a culture's negative attitude about such conditions; (4) fear of adverse reactions by others whose opinions are important; (5) feeling ashamed; (6) viewing help-seeking as a sign of weakness, having a strong preference for self-reliance, and/or having a tendency toward perfectionism; (7) fear of career repercussions; (8) concerns about confidentiality; (9) uncertainty about the quality of organizationally-provided therapists or otherwise doubting that treatment will be effective; and (10) lack of time in busy schedules.¹⁹

The Study identified similar factors. The two most common barriers to seeking treatment for a substance use disorder that lawyers reported were not wanting others to find out they needed help and concerns regarding privacy or confidentiality. Top concerns of law students in the Survey of Law Student Well Being were fear of jeopardizing their academic standing or admission to the practice of law, social stigma, and privacy concerns.²¹

Research also suggests that professionals with hectic, stressful jobs (like many lawyers and law students) are more likely to perceive obstacles for accessing treatment, which can exacerbate depression. The result of these barriers is that, rather than seeking help early, many wait until their symptoms are so severe that they interfere with daily functioning. Similar dynamics likely apply for aging lawyers seeking assistance.

Removing these barriers requires education, skill-building, and stigma-reduction strategies. Research shows that the most effective way to reduce stigma is through direct contact with someone who has personally experienced a relevant disorder. Ideally, this person should be a practicing lawyer or law student (depending on the audience) in order to create a personal connection that lends credibility and combats stigma.²² Viewing video-taped narratives also is useful, but not as effective as in-person contacts.

The military's "Real Warrior" mental health campaign can serve as one model for the legal profession. It is designed to improve soldiers' education about mental health disorders, reduce stigma, and encourage help-seeking. Because many soldiers (like many lawyers) perceive seeking help as a weakness, the campaign also has sought to re-frame help-seeking as a sign of strength that is important to resilience. It also highlights cultural values that align with seeking psychological help.²³

5. BUILD RELATIONSHIPS WITH LAWYER WELL-BEING EXPERTS.

5.1. Partner With Lawyer Assistance Programs.

All stakeholders should partner with and ensure stable and sufficient funding for the ABA's Commission on Lawyer Assistance Programs (CoLAP) as well as

¹⁸L. M. Sama & V. Shoaf, *Ethical Leadership for the Professions: Fostering a Moral Community*, 78 J. BUS. ETHICS 39 (2008).

¹⁹T. W. Britt, T. M. Greene-Shorridge, S. Brink, Q. B. Nguyen, J. Rath, A. L. Cox, C. W. Hoge, C. A. Castro, *Perceived Stigma and Barriers to Care for Psychological Treatment: Implications for Reactions to Stressors in Different Contexts*, 27 J. SOC. & CLINICAL PSYCHOL. 317 (2008); S. Ey, K. R. Henning, & D. L. Shaw, *Attitudes and Factors Related to Seeking Mental Health Treatment among Medical and Dental Students*, 14 J. C. STUDENT PSYCHOTHERAPY 23 (2000); S. E. Hanisch, C. D. Twomey, A. H. Szeto, U. W. Birner, D. Nowak, & C. Sabariego, *The Effectiveness of Interventions Targeting the Stigma of Mental Illness at the Workplace: A Systematic Review*, 16 BMC PSYCHIATRY 1 (2016); K. S. Jennings, J. H. Cheung, T. W. Britt, K. N. Goguen, S. M. Jeffers, A. L. Peasley, & A. C. Lee, *How Are Perceived Stigma, Self-Stigma, and Self-Reliance Related to Treatment-Seeking? A Three-Path Model*, 38 PSYCHIATRIC REHABILITATION J. 109 (2015); N. G. Wade, D. L. Vogel, P. Armistead-Jehle, S. S. Meit, P. J. Heath, H. A. Strass, *Modeling Stigma, Help-Seeking Attitudes, and Intentions to Seek Behavioral Healthcare in a Clinical Military Sample*, 38 PSYCHIATRIC REHABILITATION J. 135 (2015).

²⁰Krill, Johnson, & Albert, *supra* note 1, at 50.

²¹Organ, Jaffe, & Bender, *supra* note 3, at 141.

²²P. W. Corrigan, S. B. Morris, P. J. Michaels, J. D. Rafacz, & N. Rüsch, *Challenging the Public Stigma of Mental Illness: a Meta-Analysis of Outcome Studies*, 63 PSYCHIATRIC SERV. 963 (2012).

²³Wade, Vogel, Armistead-Jehle, Meit, Heath, Strass, *supra* note 19. The Real Warrior website can be found at www.realwarriors.net.



for state-based lawyer assistance programs. ABA CoLAP and state-based lawyer assistance programs are indispensable partners in efforts to educate and empower the legal profession to identify, treat, and prevent conditions at the root of the current well-being crisis, and to create lawyer-specific programs and access to treatment.²⁴ Many lawyer assistance programs employ teams of experts that are well-qualified to help lawyers, judges, and law students who experience physical or mental health conditions. Lawyer assistance programs' services are confidential, and many include prevention, intervention, evaluation, counseling, referral to professional help, and on-going monitoring. Many cover a range of well-being-related topics including substance use and mental health disorders, as well as cognitive impairment, process addictions, burnout, and chronic stress. A number also provide services to lawyer discipline and admissions processes (e.g., monitoring and drug and alcohol screening).²⁵

Notably, the Study found that, of lawyers who had reported past treatment for alcohol use, those who had used a treatment program specifically tailored to legal professionals reported, on average, significantly lower scores on the current assessment of alcohol use.²⁶ This at least suggests that lawyer assistance programs, which are specifically tailored to identify and refer lawyers to treatment providers and resources, are a better fit than general treatment programs.

Judges, regulators, legal employers, law schools, and bar associations should ally themselves with lawyer assistance programs to provide the above services. These stakeholders should also promote the services of state lawyer assistance programs. They also should emphasize the confidential nature of those services to reduce barriers to seeking help. Lawyers are reluctant

to seek help for mental health and substance use disorders for fear that doing so might negatively affect their licenses and lead to stigma or judgment of peers.²⁷ All stakeholders can help combat these fears by clearly communicating about the confidentiality of lawyer assistance programs.

We also recommend coordinating regular meetings with lawyer assistance program directors to create solutions to the problems facing the profession. Lawyer assistance programs can help organizations establish confidential support groups, wellness days, trainings, summits, and/or fairs. Additionally, lawyer assistance programs can serve as a resource for speakers and trainers on lawyer well-being topics, contribute to publications, and provide guidance to those concerned about a lawyer's well-being.

5.2. Consult Lawyer Well-Being Committees and Other Types of Well-Being Experts.

We also recommend partnerships with lawyer well-being committees and other types of organizations and consultants that specialize in relevant topics. For example, the American Bar Association's Law Practice Division established an Attorney Well-Being Committee in 2015. A number of state bars also have well-being committees including Georgia, Indiana, Maryland, South Carolina, and Tennessee.²⁸ The Florida Bar Association's Young Lawyers Division has a Quality of Life Committee "for enhancing and promoting the quality of life for young lawyers."²⁹ Some city bar associations also have well-being initiatives, such as the Cincinnati Bar Association's Health and Well-Being Committee.³⁰ These committees can serve as a resource for education, identifying speakers and trainers, developing materials, and contributing to publications. Many high-quality consultants are also available on well-being subjects.

²⁴The ABA Commission on Lawyer Assistance Programs' (CoLAP) website provides numerous resources, including help lines and a directory of state-based law assistant programs. See http://www.americanbar.org/groups/lawyer_assistance.html.

²⁵COMM'N ON LAWYER ASSISTANCE PROGRAMS, AM. BAR ASS'N, 2014 COMPREHENSIVE SURVEY OF LAWYER ASSISTANCE PROGRAMS 34-37 (2014).

²⁶Krill, Johnson, & Albert, *supra* note 1, at 50.

²⁷*Id.* at 51.

²⁸The State Bar of Georgia, "Lawyers Living Well," <https://www.gabar.org/wellness/>; The Indiana State Bar Association Wellness Committee, <https://inbar.site-ym.com/members/group.aspx?id=134020>; Maryland State Bar Association Wellness Committee, <http://www.msba.org/Wellness/default.aspx>; South Carolina Bar Lawyer Wellness Committee, <http://discussions.scbabar.org/public/wellness/index.html>; Tennessee Bar Association Attorney Well Being Committee, <http://www.tba.org/committee/attorney-well-being-committee>.

²⁹The Fla. Bar Ass'n, Young Lawyers Division, Committees, Quality of Life, <https://flayld.org/board-of-governors/committees/> (last visited June 8, 2017).

³⁰Cincinnati Bar Ass'n Health and Well-Being Committee, <http://www.cincybar.org/groups/health-and-well-being.php> (last visited June 28, 2017).



Care should be taken to ensure that they understand the particular types of stress that affect lawyers.

6. FOSTER COLLEGIALLY AND RESPECTFUL ENGAGEMENT THROUGHOUT THE PROFESSION.

We recommend that all stakeholders develop and enforce standards of collegiality and respectful engagement. Judges, regulators, practicing lawyers, law students, and professors continually interact with each other, clients, opposing parties, staff, and many others.³¹ Those interactions can either foment a toxic culture that contributes to poor health or can foster a respectful culture that supports well-being. Chronic incivility is corrosive. It depletes energy and motivation, increases burnout, and inflicts emotional and physiological damage. It diminishes productivity, performance, creativity, and helping behaviors.³²

Civility appears to be declining in the legal profession. For example, in a 1992 study, 42 percent of lawyers and 45 percent of judges believed that civility and professionalism among bar members were significant problems. In a 2007 survey of Illinois lawyers, 72 percent of respondents categorized incivility as a serious or moderately serious problem³³ in the profession. A recent study of over 6,000 lawyers found that lawyers did not generally have a positive view of lawyer or judge professionalism.³⁴ There is evidence showing that

women lawyers are more frequent targets of incivility and harassment.³⁶ Legal-industry commentators offer a host of hypotheses to explain the decline in civility.³⁷ Rather than continuing to puzzle over the causes, we acknowledge the complexity of the problem and invite further thinking on how to address it.

Incivility appears to be on the rise.

As a start, we recommend that bar associations and courts adopt rules of professionalism and civility, such as those that exist in many jurisdictions.³⁸ Likewise, law firms should adopt their own professionalism standards.³⁹ Since rules alone will not change culture, all stakeholders should devise strategies to promote wide-scale, voluntary observance of those standards. This should include an expectation that all leaders in the profession be a role model for these standards of professionalism.

Exemplary standards of professionalism are inclusive. Research reflects that organizational diversity and inclusion initiatives are associated with employee well-being, including, for example, general mental and physical health, perceived stress level, job satisfaction, organizational commitment, trust, work engagement,

³¹See C. B. Preston & H. Lawrence, *Incentivizing Lawyers to Play Nice: A National Survey on Civility Standards and Options for Enforcement*, 48 U. MICH. J.L. REFORM 701 (2015); AM. BAR ASS'N RESOL. 108 (August 2011), http://www.americanbar.org/content/dam/aba/administrative/dispute_resolution/civility.authcheckdam.pdf; AM. BAR ASS'N RESOL. 105B (August 2014), http://www.americanbar.org/news/reporter_resources/aba-2014-annual-meeting/2014-annual-meeting-house-of-delegates-resolutions/105b.html.

³²J. E. Dutton & E. D. Heaphy, *The Power of High-Quality Connections*, in *POSITIVE ORGANIZATIONAL SCHOLARSHIP: FOUNDATIONS OF A NEW DISCIPLINE* 263-278 (K. S. Cameron, J. E. Dutton, & R. E. Quinn eds., 2003); C. M. Pearson & C. L. Porath, *On the Nature, Consequences and Remedies of Workplace Incivility: No Time for "Nice"? Think Again*, 19 ACAD. OF MGMT. EXECUTIVE 7 (2005); B. M. Walsh, V. J. Magley, D. W. Reeves, K. A. Davies-Schrlis, M. D. Marmet, & J. A. Gallus, *Assessing Workgroup Norms for Civility: The Development of the Civility Norms Questionnaire-Brief*, 27 J. BUS. PSYCHOL. 407 (2012).

³³S. S. DAICOFF, LAWYER, KNOW THYSELF: A PSYCHOLOGICAL ANALYSIS OF PERSONALITY STRENGTHS AND WEAKNESSES (2004).

³⁴D. E. Campbell, *Raise Your Right Hand and Swear to Be Civil: Defining Civility As An Obligation of Professional Responsibility*, 47 GONZ. L. REV. 99 (2012); see also IL. SUP. CT. COMM'N ON PROFESSIONALISM, *Survey on Professionalism, A Study of Illinois Lawyers 2007 & Survey on Professionalism, A Study of Illinois Lawyers 2014* (2007 & 2014); L. Brodoff & T. M. Jaasko-Fisher, *WSBA Civility Study*, NW LAWYER, Dec. 2016/Jan. 2017, at 22, available at http://nwlawyer.wsba.org/nwlawyer/dec_2016_jan_2017?pg=22#pg22.

³⁵Krieger & Sheldon, *supra* note 5.

³⁶L. M. Cortina, K. A. Lonsway, V. J. Magley, L. V. Freeman, L. L. Collinsworth, M. Hunter, & L. F. Fitzgerald, *What's Gender Got to Do with It? Incivility in the Federal Courts*, 27 LAW & SOC. INQUIRY 235 (2002); see also L. M. Cortina, D. Kabat-Farr, E. A. Leskinen, M. Huerta, & V. J. Magley, *Selective Incivility as Modern Discrimination in Organizations: Evidence and Impact*, 30 J. MGMT. 1579 (2013).

³⁷E.g., Campbell, *supra* note 34; A. T. Kronman, *THE LOST LAWYER* (1993); J. Smith, *Lawyers Behaving Badly Get a Dressing Down from Civility Cops*, WALL ST. J., Jan. 27, 2013, at A1; Walsh, Magley, Reeves, Davies-Schrlis, Marmet, & Gallus, *supra* note 32.

³⁸Examples of professionalism codes can be found on the ABA Center for Professional Responsibility's website: https://www.americanbar.org/groups/professional_responsibility/committees_commissions/standingcommitteeonprofessionalism2/professionalism_codes.html; see also AM. BAR ASS'N RESOL. 108 (2011), available at http://www.americanbar.org/content/dam/aba/directories/policy/2011_am_108.authcheckdam.pdf.

³⁹See C. B. Preston & H. Lawrence, *Incentivizing Lawyers to Play Nice: A National Survey on Civility Standards and Options for Enforcement*, 48 U. MICH. J.L. REFORM 701 (2015).



perceptions of organizational fairness, and intentions to remain on the job.⁴⁰ A significant contributor to well-being is a sense of organizational belongingness, which has been defined as feeling personally accepted, respected, included, and supported by others. A weak sense of belonging is strongly associated with depressive symptoms.⁴¹ Unfortunately, however, a lack of diversity and inclusion is an entrenched problem in the legal profession.⁴² The issue is pronounced for women and minorities in larger law firms.⁴³

6.1. Promote Diversity and Inclusivity.

Given the above, we recommend that all stakeholders urgently prioritize diversity and inclusion. Regulators and bar associations can play an especially influential role in advocating for initiatives in the profession as a whole and educating on why those initiatives are important to individual and institutional well-being. Examples of relevant initiatives include: scholarships, bar exam grants for qualified applicants, law school orientation programs that highlight the importance of diversity and inclusion, CLE programs focused on diversity in the legal profession, business development symposia for women- and minority-owned law firms, pipeline programming for low-income high school and college students, diversity clerkship programs for law students, studies and reports on the state of diversity within the state's bench and bar, and diversity initiatives in law firms.⁴⁴

6.2. Create Meaningful Mentoring and Sponsorship Programs.

Another relevant initiative that fosters inclusiveness and respectful engagement is mentoring. Research has shown that mentorship and sponsorship can aid well-being and career progression for women and diverse professionals. They also reduce lawyer isolation.⁴⁶ Those who have participated in legal mentoring report a stronger sense of personal connection with others in the legal community, restored enthusiasm for the legal profession, and more resilience—all of which benefit both mentors and mentees.⁴⁷ At least 35 states and the District of Columbia sponsor formal mentoring programs.⁴⁸

7. ENHANCE LAWYERS' SENSE OF CONTROL.

Practices that rob lawyers of a sense of autonomy and control over their schedules and lives are especially harmful to their well-being. Research studies show that high job demands paired with a lack of a sense of control breeds depression and other psychological disorders.⁴⁹ Research suggests that men in jobs with such characteristics have an elevated risk of alcohol abuse.⁵⁰ A recent review of strategies designed to prevent workplace depression found that those designed to improve the perception of control were among the

⁴⁰E.g., M. M. Barak & A. Levin, *Outside of the Corporate Mainstream and Excluded from the Work Community: A Study of Diversity, Job Satisfaction and Well-Being*, 5 COMM. WORK & FAM. 133 (2002); J. Hwang & K. M. Hopkins, *A Structural Equation Model of the Effects of Diversity Characteristics and Inclusion on Organizational Outcomes in the Child Welfare Workforce*, 50 CHILD. & YOUTH SERVS. REV. 44 (2015); see generally G. R. Ferris, S. R. Daniels, & J. C. Sexton, *Race, Stress, and Well-Being in Organizations: An Integrative Conceptualization*, in THE ROLE OF DEMOGRAPHICS IN OCCUPATIONAL STRESS AND WELL-BEING 1-39 (P. L. Perrewé, C. C. Rosen, J. B. Halbesleben, P. L. Perrewé eds., 2014).

⁴¹W. D. Cockshaw & I. M. Shochet, *The Link Between Belongingness and Depressive Symptoms: An Exploration in the Workplace Interpersonal Context*, 45 AUSTRAL. PSYCHOL. 283 (2010); W. D. Cockshaw, I. M. Shochet & P. L. Obst, *Depression and Belongingness in General and Workplace Contexts: A Cross-Lagged Longitudinal Investigation*, 33 J. SOC. & CLINICAL PSYCHOL. 448 (2014).

⁴²D. L. Rhode, *Law Is The Least Diverse Profession in The Nation. And Lawyers Aren't Doing Enough to Change That*, WASH. POST, Post Everything, May 27, 2015, available at https://www.washingtonpost.com/posteverything/wp/2015/05/27/law-is-the-least-diverse-profession-in-the-nation-and-lawyers-arent-doing-enough-to-change-that/?utm_term=.a79ad124eb5c; see also Aviva Culyer, *Diversity in the Practice of Law: How Far Have We Come?*, G.P. SOLO, Sept./Oct. 2012, available at http://www.americanbar.org/publications/gp_solo/2012/september_october/diversity_practice_law_how_far_have_we_come.html.

⁴³L. S. RIKLEEN, NAT'L ASSOC. WOMEN LAWYERS, REPORT OF THE NINTH ANNUAL NAWL NATIONAL SURVEY ON RETENTION AND PROMOTION OF WOMEN IN LAW FIRMS (2015), available at <http://www.nawl.org/2015nawlsurvey>; S. A. SCHARFL, R. LIEBENBERG, & C. AMALFE, NAT'L ASSOC. WOMEN LAWYERS, REPORT OF THE EIGHTH ANNUAL NAWL NATIONAL SURVEY ON RETENTION AND PROMOTION OF WOMEN IN LAW FIRMS (2014), available at <http://www.nawl.org/pbl/et/blogid=10&blogaid=56>; see also FLA. BAR ASS'N YOUNG LAW. DIVISION COMM'N ON WOMEN, <https://flayld.org/commission-on-women/>.

⁴⁴See C. U. Stacy, *Trends and Innovations Boosting Diversity in the Law and Beyond*, IL PRAC. TODAY, March 14, 2016, available at <http://www.lawpracticetoday.org/article/trends-and-innovations-boosting-diversity-in-the-law-and-beyond>; IL SUP. CT. COMM'N ON PROFESSIONALISM, DIVERSITY & INCLUSION TOOLKIT, <https://www.2civility.org/programs/cle/cle-resources/diversity-inclusion>.

⁴⁵Ferris, Daniels, & Sexton, *supra* note 40; A. Ramaswami, G. F. Dreher, R. Bretz, & C. Wiethoff, *The Interactive Effects of Gender and Mentoring on Career Attainment: Making the Case for Female Lawyers*, 37 J. CAREER DEV. 692 (2010).

⁴⁶R. NERISON, LAWYERS, ANGER, AND ANXIETY: DEALING WITH THE STRESSES OF THE LEGAL PROFESSION (2010).

⁴⁷D. A. Cotter, *The Positives of Mentoring*, YOUNG LAW. DIV., AM. BAR ASS'N (2017), available at http://www.americanbar.org/publications/tyl/topics/mentoring/the_positives_mentoring.html; M. M. Heekin, *Implementing Psychological Resilience Training in Law Incubators*, 1 J. EXPERIENTIAL LEARNING 286 (2016).

⁴⁸Of the 35 programs, seven are mandatory (GA, NV, NM, OR, SC, UT, and WY) and some are approved for CLE credits. See the American Bar Association for more information: http://www.americanbar.org/groups/professional_responsibility/resources/professionalism/mentoring.html.

⁴⁹J.-M. Woo & T. T. Postolache, *The Impact of Work Environment on Mood Disorders and Suicide: Evidence and Implications*, 7 INT'L J. DISABILITY & HUMAN DEV. 185 (2008); J. M. Griffin, R. Fuhrer, S. A. Stansfeld, & M. Marmot, *The Importance of Low Control at Work and Home on Depression and Anxiety: Do These Effects Vary by Gender and Social Class?*, 54 SOC. SCI. & MED. 783 (2002).

⁵⁰A. J. Crum, P. Salovey, & S. Achor, *Rethinking Stress: The Role of Mindsets in Determining the Stress Response*, 10 J. PERSONALITY & SOC. PSYCHOL. 716 (2013).



most effective.⁵¹ Research confirms that environments that facilitate control and autonomy contribute to optimal functioning and well-being.⁵²

We recommend that all stakeholders consider how long-standing structures of the legal system, organizational norms, and embedded expectations might be modified to enhance lawyers' sense of control and support a healthier lifestyle. Courts, clients, colleagues, and opposing lawyers all contribute to this problem. Examples of the types of practices that should be reviewed include the following:

- Practices concerning deadlines such as tight deadlines for completing a large volume of work, limited bases for seeking extensions of time, and ease and promptness of procedures for requesting extensions of time;
- Refusal to permit trial lawyers to extend trial dates to accommodate vacation plans or scheduling trials shortly after the end of a vacation so that lawyers must work during that time;
- Tight deadlines set by clients that are not based on business needs;
- Senior lawyer decision-making in matters about key milestones and deadlines without consulting other members of the litigation team, including junior lawyers;
- Senior lawyers' poor time-management habits that result in repeated emergencies and weekend work for junior lawyers and staff;
- Expectations of 24/7 work schedules and of prompt response to electronic messages at all times; and
- Excessive law school workload, controlling teaching styles, and mandatory grading curves.

8. PROVIDE HIGH-QUALITY EDUCATIONAL PROGRAMS ABOUT LAWYER DISTRESS AND WELL-BEING.

All stakeholders should ensure that legal professionals receive training in identifying, addressing, and supporting fellow professionals with mental health and substance use disorders. At a minimum, training should cover the following:

- The warning signs of substance use or mental health disorders, including suicidal thinking;
- How, why, and where to seek help at the first signs of difficulty;
- The relationship between substance use, depression, anxiety, and suicide;
- Freedom from substance use and mental health disorders as an indispensable predicate to fitness to practice;
- How to approach a colleague who may be in trouble;
- How to thrive in practice and manage stress without reliance on alcohol and drugs; and
- A self-assessment or other check of participants' mental health or substance use risk.

As noted above, to help reduce stigma, such programs should consider enlisting the help of recovering lawyers who are successful members of the legal community. Some evidence reflects that social norms predict problem drinking even more so than stress.⁵³ Therefore, a team-based training program may be most effective because it focuses on the level at which the social norms are enforced.⁵⁴

Given the influence of drinking norms throughout the profession, however, isolated training programs are not sufficient. A more comprehensive, systemic campaign is likely to be the most effective—though certainly the most challenging.⁵⁵ All stakeholders will be critical players in such an aspirational goal. Long-term strategies should consider scholars' recommendations to incorporate mental health and substance use disorder training into broader health-promotion programs to help skirt the stigma that may otherwise deter attendance.

⁵¹S. Joyce, M. Modini, H. Christensen, A. Mykletun, R. Bryant, P. B. Mitchell, & S. B. Harvey, *Workplace Interventions for Common Mental Disorders: A Systematic Meta-Review*, 46 PSYCHOL. MED. 683, 693 (2016).

⁵²Y.-L. Su & J. Reeve, *A Meta-Analysis of the Effectiveness of Intervention Programs Designed to Support Autonomy*, 23 EDUC. PSYCHOL. REV. 159 (2011).

⁵³D. C. Hodgins, R. Williams, & G. Munro, *Workplace Responsibility, Stress, Alcohol Availability and Norms as Predictors of Alcohol Consumption-Related Problems Among Employed Workers*, 44 SUBSTANCE USE & MISUSE 2062 (2009).

⁵⁴C. Kolar & K. von Treuer, *Alcohol Misuse Interventions in the Workplace: A Systematic Review of Workplace and Sports Management Alcohol Interventions*, 13 INT'L J. MENTAL HEALTH ADDICTION 563 (2015); e.g., J. B. Bennett, W. E. K. Lehman, G. S. Reynolds, *Team Awareness for Workplace Substance Abuse Prevention: The Empirical and Conceptual Development of a Training Program*, 1 PREVENTION SCI. 157 (2000).

⁵⁵Kolar & von Treuer, *supra* note 54.



Research also suggests that, where social drinking has become a ritual for relieving stress and for social bonding, individuals may resist efforts to deprive them of a valued activity that they enjoy. To alleviate resistance based on such concerns, prevention programs should consider making “it clear that they are not a temperance movement, only a force for moderation,” and that they are not designed to eliminate bonding but to ensure that drinking does not reach damaging dimensions.⁵⁶

Additionally, genuine efforts to enhance lawyer well-being must extend beyond disorder detection and treatment. Efforts aimed at remodeling institutional and organizational features that breed stress are

Well-being efforts must extend beyond detection and treatment and address root causes of poor health.

crucial, as are those designed to cultivate lawyers’ personal resources to boost resilience. All stakeholders should participate in the development and delivery of educational materials and programming that go beyond detection to include causes and consequences of distress. These programs should be eligible for CLE credit, as discussed in Recommendation 20.3. **Appendix B** to this report offers examples of well-being-related educational content, along with empirical evidence to support each example.

9. GUIDE AND SUPPORT THE TRANSITION OF OLDER LAWYERS.

Like the general population, the lawyer community is aging and lawyers are practicing longer.⁵⁷ In the Baby Boomer generation, the oldest turned 62 in 2008, and the youngest will turn 62 in 2026.⁵⁸ In law firms, one estimate indicates that nearly 65 percent of equity partners will retire over the next decade.⁵⁹ Senior lawyers can bring much to the table, including their wealth of experience, valuable public service, and mentoring of new lawyers. At the same time, however, aging lawyers have an increasing risk for declining physical and mental capacity. Yet few lawyers and legal organizations have sufficiently prepared to manage transitions away from the practice of law before a crisis occurs. The result is a rise in regulatory and other issues relating to the impairment of senior lawyers. We make the following recommendations to address these issues:



Planning Transition of Older Lawyers

1. Provide education to detect cognitive decline.
2. Develop succession plans.
3. Create transition programs to respectfully aid retiring professionals plan for their next chapter.

⁵⁶R. F. Cook, A. S. Back, J. Trudeau, & T. McPherson, *Integrating Substance Abuse Prevention into Health Promotion Programs in the Workplace: A Social Cognitive Intervention Targeting the Mainstream User*, in PREVENTING WORKPLACE SUBSTANCE ABUSE: BEYOND DRUG TESTING TO WELLNESS 97 (W. K. Lehman, J. B. Bennett eds., 2003).

⁵⁷A recent American Bar Association report reflected that, in 2005, 34 percent of practicing lawyers were age fifty-five or over, compared to 25 percent in 1980. See LAWYER DEMOGRAPHICS, A.B.A. SEC. OF LEGAL EDUC. & ADMISSIONS TO THE BAR (2016), available at http://www.americanbar.org/content/dam/aba/administrative/market_research/lawyer-demographics-tables-2016.authcheckdam.pdf.

⁵⁸E. A. McNickle, A Grounded Theory Study of Intrinsic Work Motivation Factors Influencing Public Utility Employees Aged 55 and Older as Related to Retirement Decisions (2009) (doctoral dissertation, Capella University) (available from ProQuest Dissertations and Theses Database).

⁵⁹M. P. Shannon, *A Short Course in Succession Planning*, 37 L. PRAC. MAG. (2011), available at http://www.americanbar.org/publications/law_practice_magazine/2011/may_june/a_short_course_in_succession_planning.html.



First, all stakeholders should create or support programming for detecting and addressing cognitive decline in oneself and colleagues.

Second, judges, legal employers, bar associations, and regulators should develop succession plans, or provide education on how to do so, to guide the transition of aging legal professionals. Programs should include help for aging members who show signs of diminished cognitive skills, to maintain their dignity while also assuring they are competent to practice.⁶⁰ A model program in this regard is the North Carolina Bar Association's Senior Lawyers Division.⁶¹

Third, we recommend that legal employers, law firms, courts, and law schools develop programs to aid the transition of retiring legal professionals. Retirement can enhance or harm well-being depending on the individual's adjustment process.⁶² Many lawyers who are approaching retirement age have devoted most of their adult lives to the legal profession, and their identities often are wrapped up in their work. Lawyers whose self-esteem is contingent on their workplace success are likely to delay transitioning and have a hard time adjusting to retirement.⁶³ Forced retirement that deprives individuals of a sense of control over the exit timing or process is particularly harmful to well-being and long-term adjustment to retirement.⁶⁴

To assist stakeholders in creating the programming to guide and support transitioning lawyers, the Task Force sets out a number of suggestions in **Appendix C**.

10. DE-EMPHASIZE ALCOHOL AT SOCIAL EVENTS.

Workplace cultures or social climates that support alcohol consumption are among the most consistent predictors of employee drinking. When employees drink

together to unwind from stress and for social bonding, social norms can reinforce tendencies toward problem drinking and stigmatize seeking help. On the other hand, social norms can also lead colleagues to encourage those who abuse alcohol to seek help.⁶⁵

In the legal profession, social events often center around alcohol consumption (e.g., "Happy Hours," "Bar Reviews," networking receptions, etc.). The expectation of drinking is embedded in the culture, which may contribute to over-consumption. Legal employers, law schools, bar associations, and other stakeholders that plan social events should provide a variety of alternative non-alcoholic beverages and consider other types of activities to promote socializing and networking. They should strive to develop social norms in which lawyers discourage heavy drinking and encourage others to seek help for problem use.

11. UTILIZE MONITORING TO SUPPORT RECOVERY FROM SUBSTANCE USE DISORDERS.

Extensive research has demonstrated that random drug and alcohol testing (or "monitoring") is an effective way of supporting recovery from substance use disorders and increasing abstinence rates. The medical profession has long relied on monitoring as a key component of its treatment paradigm for physicians, resulting in long-term recovery rates for that population that are between 70-96 percent, which is the highest in all of the treatment outcome literature.⁶⁶ One study found that 96 percent of medical professionals who were subject to random drug tests remained drug-free, compared to only 64 percent of those who were not subject to mandatory testing.⁶⁷ Further, a national survey of physician health programs found that among medical professionals who completed their prescribed treatment requirements (including monitoring), 95 percent were licensed and actively

⁶⁰See generally W. SLEASE ET AL., NOBC-APRL-COLAP SECOND JOINT COMMITTEE ON AGING LAWYERS, FINAL REPORT (2014), available at http://www.americanbar.org/content/dam/aba/administrative/lawyer_assistance/lc_colap_nobc_aprl_colap_second_joint_committee_aging_lawyers.authcheckdam.pdf.

⁶¹Senior Lawyers Division, N. C. Bar Ass'n, <https://www.ncbar.org/members/divisions/senior-lawyers/>.

⁶²N. Houliort, C. Fernet, R. J. Vallerand, A. Laframboise, F. Guay, & R. Koestner, *The Role of Passion for Work and Need for Satisfaction in Psychological Adjustment to Retirement*, 88 J. VOCATIONAL BEHAVIORS 84 (2015).

⁶³*Id.*

⁶⁴E. Dingemans & K. Henkens, *How Do Retirement Dynamics Influence Mental Well-Being in Later Life? A 10-Year Panel Study*, 41 SCANDINAVIAN J. WORK, ENV'T & HEALTH 16 (2015); A. M. Muratore & J. K. Earl, *Improving Retirement Outcomes: The Role of Resources, Pre-Retirement Planning and Transition Characteristics*, 35 AGEING & SOC. 2100 (2015).

⁶⁵J. B. Bennett, C. R. Patterson, G. S. Reynolds, W. L. Witala, & W. K. Lehman, *Team Awareness, Problem Drinking, and Drinking Climate: Workplace Social Health Promotion in a Policy Context*, 19 AM. J. HEALTH PROMOTION 103 (2004).

⁶⁶R. L. DuPont, A. T. McLellan, W. L. White, L. Merlo & M. S. Gold, *Setting the Standard for Recovery: Physicians Health Programs Evaluation Review*, 36 J. SUBSTANCE ABUSE TREATMENT 159 (2009).

⁶⁷J. Shore, *The Oregon Experience with Impaired Physicians on Probation: An Eight Year Follow-Up*, 257 J. AM. MED. ASS'N 2931 (1987).



working in the health care field at a five year follow-up after completing their primary treatment program.⁶⁸ In addition, one study has found that physicians undergoing monitoring through physician health programs experienced lower rates of malpractice claims.⁶⁹

Such outcomes are not only exceptional and encouraging, they offer clear guidance for how the legal profession could better address its high rates of substance use disorders and increase the likelihood of positive outcomes. Although the benefits of monitoring have been recognized by various bar associations, lawyer assistance programs, and employers throughout the legal profession, a uniform or “best practices” approach to the treatment and recovery management of lawyers has been lacking. Through advances in monitoring technologies, random drug and alcohol testing can now be administered with greater accuracy and reliability—as well as less cost and inconvenience—than ever before. Law schools, legal employers, regulators, and lawyer assistance programs would all benefit from greater utilization of monitoring to support individuals recovering from substance use disorders.

12. BEGIN A DIALOGUE ABOUT SUICIDE PREVENTION.

It is well-documented that lawyers have high rates of suicide.⁷⁰ The reasons for this are complicated and varied, but some include the reluctance of attorneys to ask for help when they need it, high levels of depression amongst legal professionals, and the stressful nature of the job.⁷¹ If we are to change these statistics, stakeholders need to provide education and take action. Suicide, like mental health or substance use disorders, is a highly stigmatized topic. While it is an issue that touches many of us, most people are uncomfortable discussing suicide. Therefore, stakeholders must make a concerted effort towards suicide prevention to demonstrate to the legal community that we are not

afraid of addressing this issue. We need leaders to encourage dialogue about suicide prevention.

One model for this is through a “Call to Action,” where members of the legal community and stakeholders from lawyer assistance programs, the judiciary, law firms, law schools, and bar associations are invited to attend a presentation and community discussion about the issue.



Call to Action

- ✓ **Organize “Call to Action” events to raise awareness.**
- ✓ **Share stories of those affected by suicide.**
- ✓ **Provide education about signs of depression and suicidal thinking.**
- ✓ **Learn non-verbal signs of distress.**
- ✓ **Collect and publicize available resources.**

When people who have been affected by the suicide of a friend or colleague share their stories, other members of the legal community begin to better understand the impact and need for prevention.⁷² In addition, stakeholders can schedule educational presentations that incorporate information on the signs and symptoms of suicidal thinking along with other mental health/

⁶⁸R. L. DuPont, A. T. McLellan, G. Carr, M. Gendel, & G. E. Skipper, *How Are Addicted Physicians Treated? A National Survey of Physician Health Programs*, 37 J. SUBSTANCE ABUSE TREATMENT 1 (2009).

⁶⁹E. Brooks, M. H. Gendel, D. C. Gundersen, S. R. Early, R. Schirmacher, A. Lembitz, & J. H. Shore, *Physician Health Programs and Malpractice Claims: Reducing Risk Through Monitoring*, 63 OCCUPATIONAL MED. 274 (2013).

⁷⁰R. Flores & R. M. Arce, *Why Are Lawyers Killing Themselves?*, CNN, Jan. 20, 2014, <http://www.cnn.com/2014/01/19/us/lawyer-suicides/>. If you or someone you know is experiencing suicidal thinking, please seek help immediately. The National Suicide Prevention Lifeline can be reached at 1-800-273-8255, <https://suicidepreventionlifeline.org>.

⁷¹*Id.*

⁷²The Colorado Lawyer Assistance Program sponsored one such Call to Action on January 21, 2016, in an effort to generate more exposure to this issue so the legal community better understands the need for dialogue and prevention.



substance use disorders. These can occur during CLE presentations, staff meetings, training seminars, at law school orientations, bar association functions, etc. Stakeholders can contact their state lawyer assistance programs, employee assistance program agencies, or health centers at law schools to find speakers, or referrals for counselors or therapists so that resources are available for family members of lawyers, judges, and law students who have taken their own life.

It's important for all stakeholders to understand that, while lawyers might not tell us that they are suffering, they will show us through various changes in behavior and communication styles. This is so because the majority of what we express is non-verbal.⁷³ Becoming better educated about signs of distress will enable us to take action by, for example, making health-related inquiries or directing them to potentially life-saving resources.

being also have an important role to play in defining success and informing policy.⁷⁵ The index would help track progress on the transformational effort proposed in this report. For law firms, it also may help counter-balance the “profits per partner metric” that has been published by *The American Lawyer* since the late 1980s, and which some argue has driven the profession away from its core values. As a foundation for building the well-being index, stakeholders could look to, for example, criteria used in *The American Lawyer's* Best Places to Work survey, or the Tristan Jepson Memorial Foundation's best practice guidelines for promoting psychological well-being in the legal profession.⁷⁶

13. SUPPORT A LAWYER WELL-BEING INDEX TO MEASURE THE PROFESSION'S PROGRESS.

We recommend that the ABA coordinate with state bar associations to create a well-being index for the legal profession that will include metrics related to lawyers, staff, clients, the legal profession as a whole, and the broader community. The goal would be to optimize the well-being of all of the legal profession's stakeholders.⁷⁴ Creating such an index would correspond with a growing worldwide consensus that success should not be measured solely in economic terms. Measures of well-

⁷³ALBERT MEHRABIAN, SILENT MESSAGES: IMPLICIT COMMUNICATION OF EMOTIONS AND ATTITUDES (1972).

⁷⁴See R. E. FREEMAN, J. S. HARRISON, & A. WICKS, MANAGING FOR STAKEHOLDERS: SURVIVAL, REPUTATION, AND SUCCESS (2007); J. MACKEY & R. SISODIA, CONSCIOUS CAPITALISM: LIBERATING THE HEROIC SPIRIT OF BUSINESS (2014).

⁷⁵L. Fasolo, M. Galetto, & E. Turina, *A Pragmatic Approach to Evaluate Alternative Indicators to GDP*, 47 QUALITY & QUANTITY 633 (2013); WORLD HAPPINESS REPORT (J. Helliwell, R. Layard, & J. Sachs eds., 2013), available at http://unsdsn.org/wp-content/uploads/2014/02/WorldHappinessReport2013_online.pdf; G. O'Donnell, *Using Well-Being as a Guide to Public Policy*, in WORLD HAPPINESS REPORT.

⁷⁶The Tristan Jepson Memorial Foundation's Guidelines are available at http://tjmf.client.fatbeehive.com.au/wp/wp-content/uploads/TJMFmentalHealthGuidelines_A4_140427.pdf.



As part of the same survey or conducted separately, legal employers should consider assessing the overall state of lawyers' well-being. Surveys are available to measure concepts like depression, substance use, burnout, work engagement, and psychological well-being. The Maslach Burnout Inventory (MBI) is the most widely used burnout assessment. It has been used to measure burnout among lawyers and law students.¹¹⁵ Programs in the medical profession have recommended a bi-annual distribution of the MBI.¹¹⁶

Legal employers should carefully consider whether internal staff will be able to accurately conduct this type of assessment or whether hiring an outside consultant would be advisable. Internal staff may be more vulnerable to influence by bias, denial, and misinterpretation.

25. ESTABLISH POLICIES AND PRACTICES TO SUPPORT LAWYER WELL-BEING.

Legal employers should conduct an in-depth and honest evaluation of their current policies and practices that relate to well-being and make necessary adjustments. This evaluation should seek input from all lawyers and staff in a safe and confidential manner, which creates transparency that builds trust. **Appendix D** sets out example topics for an assessment.

Legal employers also should establish a confidential reporting procedure for lawyers and staff to convey concerns about their colleagues' mental health or substance use internally, and communicate how lawyers and staff can report concerns to the appropriate disciplinary authority and/or to the local lawyer assistance program. Legal employers additionally should establish a procedure for lawyers to seek confidential help for themselves without being

penalized or stigmatized. CoLAP and state lawyer assistance programs can refer legal employers to existing help lines and offer guidance for establishing an effective procedure that is staffed by properly-trained people.¹¹⁷ We note that the ABA and New York State Bar Association have proposed model law firm policies for handling lawyer impairment that can be used for guidance.¹¹⁸ The ABA has provided formal guidance on managing lawyer impairment.¹¹⁹

25.1. Monitor For Signs of Work Addiction and Poor Self-Care.

Research reflects that about a quarter of lawyers are workaholics, which is more than double that of the 10 percent rate estimated for U.S. adults generally.¹²⁰ Numerous health and relationship problems, including depression, anger, anxiety, sleep problems, weight gain, high blood pressure, low self-esteem, low life satisfaction, work burnout, and family conflict can develop from work addiction. Therefore, we recommend that legal employers monitor for work addiction and avoid rewarding extreme behaviors that can ultimately harm their health. Legal employers should expressly encourage lawyers to make time to care for themselves and attend to other personal obligations. They may also want to consider promoting physical activity to aid health and cognitive functioning.

25.2. Actively Combat Social Isolation and Encourage Interconnectivity.

As job demands have increased and budgets have tightened, many legal employers have cut back on social activities. This could be a mistake. Social support from colleagues is an important factor for coping with stress and preventing negative consequences like burnout.¹²¹ Socializing helps individuals recover from work demands

¹¹⁵See, e.g., S. E. Jackson, J. A. Turner, & A. P. Brief, *Correlates of Burnout Among Public Service Lawyers*, 8 J. ORG. BEHAV. 339 (1987); see also R. Durr, *Creating "Whole Lawyers": Wellness, Balance, and Performance Excellence At Northwestern University School of Law*, NW. SCH. OF L. (2015), available at http://www.americanbar.org/content/dam/aba/events/professional_responsibility/2015/May/Conference/Materials/8_wellbeing_program_catalog_2014_2015%204%203%2015%20version.authcheckdam.pdf.

¹¹⁶J. Eckleberry-Hunt, A. Van Dyke, D. Lick, & J. Tucciarone, *Changing the Conversation from Burnout to Wellness: Physician Well-being in Residency Training Programs*, 1 J. GRADUATE MED. EDUC. 225 (2009). The MBI is available at <http://www.mindgarden.com/117-maslach-burnout-inventory>.

¹¹⁷CoLAP's website provides help-line information and a directory of state-based lawyer assistance programs: http://www.americanbar.org/groups/lawyer_assistance.html.

¹¹⁸AM. BAR ASS'N RESOL. 118, MODEL LAW FIRM/LEGAL DEPARTMENT IMPAIRMENT POLICY & GUIDELINES (Aug. 1990), available at <https://www.texasbar.com/AM/Template.cfm?Section=Employers1&Template=/CM/ContentDisplay.cfm&ContentID=15131>; NEW YORK STATE BAR ASSOCIATION LAWYER ASSISTANCE COMMITTEE MODEL POLICY, N. Y. STATE BAR ASS'N (2010), available at https://www.nassabar.org/UserFiles/Model_Policy.pdf.

¹¹⁹AM. BAR ASS'N FORMAL OPINION 03-429 (2003), available at http://www.americanbar.org/content/dam/aba/migrated/cpr/clientpro/03_429.authcheckdam.pdf.

¹²⁰Brafford, *supra* note 2.

¹²¹C. Maslach, W. B. Schaufeli, & M. P. Leiter, *Job Burnout*, 52 ANN. REV. OF PSYCHOL. 397, 415 (2001); T. Reuter & R. Schwarzer, *Manage Stress at Work Through Preventive and Proactive Coping*, in Locke, *supra* note 7.



and can help stave off emotional exhaustion.¹²² It inhibits lawyers feeling isolated and disconnected, which helps with firm branding, messaging, and may help reduce turnover. We recommend deemphasizing alcohol at such events.

26. PROVIDE TRAINING AND EDUCATION ON WELL-BEING, INCLUDING DURING NEW LAWYER ORIENTATION.

We recommend that legal employers provide education and training on well-being-related topics and recruit experts to help them do so. A number of law firms already offer well-being related programs, like meditation, yoga sessions, and resilience workshops.¹²³ We also recommend orientation programs for new lawyers that incorporate lawyer well-being education and training.¹²⁴ Introducing this topic during orientation will signal its importance to the organization and will start the process of developing skills that may help prevent well-being problems. Such programs could:

- Introduce new lawyers to the psychological challenges of the job.¹²⁵
- Reduce stigma surrounding mental health problems.
- Take a baseline measure of well-being to track changes over time.
- Provide resilience-related training.
- Incorporate activities focused on individual lawyers' interests and strengths, and not only on organizational expectations.¹²⁶

Further, law firms should ensure that all members and staff know about resources, including lawyer assistance

programs, that can assist lawyers who may experience mental health and substance use disorders. This includes making sure that members and staff understand confidentiality issues pertaining to those resources.

26.1. Emphasize a Service-Centered Mission.

At its core, law is a helping profession. This can get lost in the rush of practice and in the business aspects of law. Much research reflects that organizational cultures that focus chiefly on materialistic, external rewards can damage well-being and promote a self-only focus. In fact, research shows that intrinsic values like relationship-

Work cultures that constantly emphasize competitive, self-serving goals can harm lawyer well-being.

development and kindness are stifled in organizations that emphasize extrinsic values like competition, power, and monetary rewards.¹²⁷ Work cultures that constantly emphasize competitive, self-serving goals will continually trigger competitive, selfish behaviors from lawyers that harm organizations and individual well-being. This can be psychologically draining. Research of Australian lawyers found that 70 percent reported that the practice of law is bottom-line driven.¹²⁸ Lawyers who reported that the practice of law was primarily about generating profits were more likely to be depressed.¹²⁹ This affects the

¹²²M. J. Tews, J. W. Michel, & K. Stafford, *Does Fun Pay? The Impact of Workplace Fun on Employee Turnover and Performance*, 54 CORNELL HOSPITALITY QUARTERLY, 370 (2013).

¹²³E.g., C. Bushey, *Kirkland & Ellis to Offer Wellness Training to All U.S. Lawyers*, CRAIN'S CHICAGO BUS., May 2, 2016, available at <http://www.chicagobusiness.com/article/20160502/NEWS04/160509972/kirkland-ellis-to-offer-wellness-training-to-all-u-s-lawyers>; N. Rodriguez, *What the Army Can Teach BigLaw about Bouncing Back*, LAW360, Feb. 17, 2017, https://www.law360.com/in-depth/articles/891995?nl_pk=972d8116-f9f0-4582-a4c6-0ab3cf4a034c&utm_source=newsletter&utm_medium=email&utm_campaign=in-depth (identifying Goodwin Procter LLP, O'Melveny & Myers LLP, Morgan Lewis & Bockius LLP, Fish & Richardson PC, Drinker Biddle & Reath LLP, Quarles & Brady LLP, and Neal Gerber & Eisenberg LLP as having hosted resilience workshops).

¹²⁴See A. M. Saks, & J. A. Gruman, *Organizational Socialization and Positive Organizational Behaviour: Implications for Theory, Research, and Practice*, 28 CANADIAN J. ADMIN. SCI. 14 (2011).

¹²⁵See generally J. P. Wanous & A. E. Reichers, *New Employee Orientation Programs*, 10 HUMAN RESOURCE MGMT. REV. 435 (2000), available at <http://homepages.se.edu/cvonbergen/files/2013/01/New-Employee-Orientation-Programs.pdf>.

¹²⁶See D. M. Cable, F. Gino, & B. R. Staats, *Reinventing Employee Onboarding*, M.I.T. SLOAN MGMT. REV. (2013), available at <http://sloanreview.mit.edu/article/reinventing-employee-onboarding>.

¹²⁷T. Kasser, *Materialistic Values and Goals*, 67 ANN. REV. OF PSYCHOL. 489 (2015); T. Kasser, *Teaching about Values and Goals: Applications of the Circumplex Model to Motivation, Well-Being, and Prosocial Behavior*, 41 TEACHING PSYCHOL. 365 (2014).

¹²⁸A. J. Bergin & N. L. Jimmieson, *Australian Lawyer Well-Being: Workplace Demands, Resources and the Impact of Time-Billing Targets*, 21 PSYCHIATRY, PSYCHOL. & L. 427 (2014).

¹²⁹A. D. Joudrey & J. E. Wallace, *Leisure as a Coping Resource: A Test of the Job Demand-Control-Support Model*, 62 HUMAN RELATIONS 195 (2009).

¹³⁰A. Hansen, Z. Byrne, & C. Kiersch, *How Interpersonal Leadership Relates to Employee Engagement*, 29 J. MANAGERIAL PSYCHOL. 953 (2014).



bottom line since poor mental health can cause disability and lost productivity.

Consequently, we recommend that legal employers evaluate what they prioritize and value, and how those values are communicated. When organizational values evoke a sense of belonging and pride, work is experienced as more meaningful.¹³⁰ Experiencing work as meaningful is the biggest contributor to work engagement—a form of work-related well-being.¹³¹

26.2. Create Standards, Align Incentives, and Give Feedback.

Contextual factors (i.e., the structure, habits, and dynamics of the work environment) play an enormous role in influencing behavior change. Training alone is almost never enough. To achieve change, legal employers will need to set standards, align incentives, and give feedback about progress on lawyer well-being topics.¹³²

Currently, few legal employers have such structural supports for lawyer well-being. For example, many legal employers have limited or no formal leader development programs, no standards set for leadership skills and competencies, and no standards for evaluating leaders' overall performance or commitment to lawyer well-being. Additionally, incentive systems rarely encourage leaders to develop their own leadership skills or try to enhance the well-being of lawyers with whom they work. In law firms especially, most incentives are aligned almost entirely toward revenue growth, and any feedback is similarly narrow. To genuinely adopt lawyer well-being as a priority, these structural and cultural issues will need to be addressed.

¹³⁰A. Hansen, Z. Byrne, & C. Kiersch, *How Interpersonal Leadership Relates to Employee Engagement*, 29 J. MANAGERIAL PSYCHOL. 953 (2014).

¹³¹A. M. BRAFFORD, POSITIVE PROFESSIONALS: CREATING HIGH-PERFORMING, PROFITABLE FIRMS THROUGH THE SCIENCE OF ENGAGEMENT. (American Bar Association, forthcoming November 2017.); D. R. May, R. L. Gilson, & L. M. Harter, *The Psychological Conditions of Meaningfulness, Safety and Availability and the Engagement of the Human Spirit at Work*, 77 J. OCCUPATIONAL & ORGANIZATIONAL PSYCHOL. 11 (2004).

¹³²R. A. NOE, EMPLOYEE TRAINING AND DEVELOPMENT (McGraw-Hill 2013).



RECOMMENDATIONS FOR LAW SCHOOLS



“Well-being is a combination of feeling good as well as actually having meaning, good relationships, and accomplishment.” — Martin Seligman

Law students start law school with high life satisfaction and strong mental health measures. But within the first year of law school, they experience a significant increase in anxiety and depression.¹³³ Research suggests that law students are among the most dissatisfied, demoralized, and depressed of any graduate student population.¹³⁴

The 2016 Survey of Law Student Well-Being found troublesome rates of alcohol use, anxiety, depression, and illegal drug use at law schools across the country.

42% of students needed help for poor mental health but only about half sought it out.

Equally worrisome is students' level of reluctance to seek help for those issues. A large majority of students (about 80 percent) said that they were somewhat or very likely to seek help from a health professional for alcohol, drug, or mental health issues, but few actually did.¹³⁵ For example, while 42 percent thought that they had needed help for mental health problems in the prior year, only about half of that group actually received counseling from a health professional.¹³⁶ Only four percent said they had ever received counseling for alcohol or drug issues—even though a quarter were at risk for problem drinking.¹³⁷

The top factors that students reported as discouraging them from seeking help were concerns that it would threaten their bar admission, job, or academic status; social stigma; privacy concerns; financial reasons; belief that they could handle problems on their own; and not having enough time. Students' general reluctance to seek help may be one factor explaining why law student wellness has not changed significantly since the last student survey in the 1990s.¹³⁸ It appears that recommendations stemming from the 1993 survey either were not implemented or were not successful.¹³⁹ The Survey of Law Student Well-Being did not seek to identify the individual or contextual factors that might be contributing to students' health problems. It is important to root out such causes to enable real change. For example, law school graduates cite heavy workload, competition, and grades as major law school stressors.¹⁴⁰ Others in the legal community have offered additional insights about common law school practices, which are discussed below. Law school well-being initiatives should not be limited to detecting disorders and enhancing student resilience. They also should include identifying organizational practices that may be contributing to the problems and assessing what changes can be made to support student well-being. If legal educators ignore the impact of law school stressors, learning is likely to be suppressed and illness may be intensified.¹⁴¹

The above reflects a need for both prevention strategies to address dysfunctional drinking and misuse of substances as well as promotion strategies that identify aspects of legal education that can be revised to support

¹³³L. S. Krieger, *Institutional Denial About the Dark Side of Law School, and Fresh Empirical Guidance for Constructively Breaking the Silence*, 52 J. LEGAL EDUC. 112, 113-15 (2002).

¹³⁴A. A. Patthoff, *This is Your Brain on Law School: The Impact of Fear-Based Narratives on Law Students*, 2015 UTAH L. REV. 391, 424 (2015).

¹³⁵Organ, Jaffe, & Bender, *supra* note 3, at 143.

¹³⁶*Id.* at 140.

¹³⁷*Id.*

¹³⁸ASS'N AM. L. SCH. SPECIAL COMM. ON PROBLEMS OF SUBSTANCE ABUSE IN THE L. SCHS. (1993).

¹³⁹*Id.* at vi-vii.

¹⁴⁰R. A. Lasso, *Is Our Students Learning? Using Assessments to Measure and Improve Law School Learning and Performance*, 15 BARRY L. REV. 73, 79 (2010).

¹⁴¹Patthoff, *supra* note 134, at 424.

well-being. The recommendations below offer some ideas for both.

27. CREATE BEST PRACTICES FOR DETECTING AND ASSISTING STUDENTS EXPERIENCING PSYCHOLOGICAL DISTRESS.

Ignoring law school stressors can suppress learning and intensify illness.

Law schools should develop best practices for creating a culture in which all associated with the school take responsibility for student well-being. Faculty and administrators play an important role in forming a school's culture and should be encouraged to share responsibility for student well-being.

27.1. Provide Training to Faculty Members Relating to Student Mental Health and Substance Use Disorders.

Faculty have significant sway over students but generally students are reluctant to approach them with personal problems, especially relating to their mental health. Students' aversion to doing so may be exacerbated by a perception that faculty members must disclose information relating to students' competence to practice to the state bar. To help remove uncertainty and encourage students to ask for help, law schools should consider working with lawyer assistance programs on training faculty on how to detect students in trouble, how to have productive conversations with such students, what and when faculty need to report information relating to such students, as well as confidentiality surrounding these services.¹⁴² Students should be educated about

faculty's reporting requirements to add clarity and reduce student anxiety when interacting with faculty.

Additionally, faculty members should be encouraged to occasionally step out of their formal teaching role to convey their respect and concern for students, to acknowledge the stressors of law school, and to decrease stigma about seeking help for any health issues that arise. Faculty should consider sharing experiences in which students confronted similar issues and went on to become healthy and productive lawyers.

To support this recommendation, deans of law schools must be engaged. The well-being of future lawyers is too important to relegate to student affairs departments. For faculty to take these issues seriously, it must be clear to them that deans value the time that faculty spend learning about and addressing the needs of students outside the classroom. With the full backing of their deans, deans of students should provide training and/or information to all faculty that includes talking points that correspond to students' likely needs—e.g., exam scores, obtaining jobs, passing the bar, accumulating financial debt, etc. Talking points should be offered only as a guideline. Faculty should be encouraged to tailor conversations to their own style, voice, and relationship with the student.

Law schools should consider inviting law student and lawyer well-being experts to speak at faculty lunches, colloquia, and workshops to enhance their knowledge of this scholarship.¹⁴³ Such programming should include not just faculty but teaching assistants, legal writers, peer mentors, and others with leadership roles in whom law students may seek to confide. Many of these experts are members of the Association of American Law Schools section on Balance in Legal Education.¹⁴⁴ Their scholarship is organized in an online bibliography divided into two topics: Humanizing the Law School Experience and Humanizing the Practice of Law.¹⁴⁵

¹⁴²See Organ, Jaffe, & Bender, *supra* note 3, at 153. At American University Washington College of Law, as but one example likely among many, the dean of students invites faculty no less than every other year to meet with the University Counseling director and D.C. Bar Lawyer Assistance Program manager to discuss trends, highlight notable behaviors, discuss how to respond to or refer a student, and the importance of tracking attendance.

¹⁴³See J. Bibbelhausen, K. M. Bender, R. Barrett, *Reducing the Stigma: The Deadly Effect of Untreated Mental Illness and New Strategies for Changing Outcomes in Law Students*, 41 WM. MITCHELL L. REV. 918 (2015).

¹⁴⁴Balance in Legal Educ. Sec., Ass'n Am. L. Sch., https://memberaccess.aals.org/eweb/dynamicpage.aspx?webcode=ChpDetail&chp_cst_key=9fb324e8-e515-4fd3-b6db-a1723feeb799.

¹⁴⁵*Id.* at Bibliography.



27.2. Adopt a Uniform Attendance Policy to Detect Early Warning Signs of Students in Crisis.

While law students may occasionally miss class due to personal conflicts, their repeated absence often results from deteriorating mental health.¹⁴⁶ Creating a system to monitor for chronic absences can help identify students for proactive outreach. Consequently, law schools should adhere to a consistent attendance policy that includes a timely reporting requirement to the relevant law school official. Absent such a requirement, deans of students may be left with only a delayed, reactive approach.

If faculty members are reluctant to report student absences, a system can be created to ensure that a report cannot be traced to the faculty member. Several law schools have adopted “care” networks or random check-ins whereby someone can report a student as potentially needing assistance.¹⁴⁷ In these programs, the identity of the person who provided the report is kept confidential.

Certain models on this issue include the American University Washington College of Law, which implements random “check-in” outreach, emailing students to visit the Student Affairs office for brief conversations. This method allows for a student about whom a concern has been raised to be folded quietly into the outreach.¹⁴⁸ Georgetown Law School allows anyone concerned about a student to send an email containing only the student’s name, prompting relevant law school officials to check first with one another and then investigate to determine if a student meeting is warranted.¹⁴⁹ The University of Miami School of Law uses an online protocol for a student to self-report absences in advance, thus enabling the dean of students to follow up as appropriate if personal problems are indicated.¹⁵⁰

27.3. Provide Mental Health and Substance Use Disorder Resources.

Law schools should identify and publicize resources so that students understand that there are resources available to help them confront stress and well-being crises. They should highlight the benefits of these resources and that students should not feel stigmatized for seeking help. One way to go about this is to have



Develop Student Resources

- ✓ **Create and publicize well-being resources designed for students.**
- ✓ **Counter issues of stigma.**
- ✓ **Include mental health resources in every course syllabus.**
- ✓ **Organize wellness events.**
- ✓ **Develop a well-being curriculum.**
- ✓ **Establish peer mentoring.**

every course syllabus identify the law school’s mental health resources. The syllabus language should reflect an understanding that stressors exist.¹⁵¹ Law schools also can hold special events, forums, and conversations that coincide with national awareness days, such as mental health day and suicide prevention day.

¹⁴⁶See Organ, Jaffe, & Bender, *supra* note 3, at 152.

¹⁴⁷*Id.*

¹⁴⁸*Id.*

¹⁴⁹*Id.*

¹⁵⁰*Id.*

¹⁵¹One example of such a provision is: “Mental Health Resources: Law school is a context where mental health struggles can be exacerbated. If you ever find yourself struggling, please do not hesitate to ask for help. If you wish to seek out campus resources, here is some basic information: [Website]. [Law School Name] is committed to promoting psychological wellness for all students. Our mental health resources offer support for a range of psychological issues in a confidential and safe environment. [Phone; email; address; hotline number].”



Developing a well-being curriculum is an additional way to convey that resources are available and that the law school considers well-being a top priority. Northwestern University's Pritzker School of Law has accomplished the latter with well-being workshops, mindfulness and resilience courses, and meditation sessions as part of a larger well-being curriculum.¹⁵²

Another noteworthy way to provide resources is to establish a program where law students can reach out to other law students who have been trained to intervene and help refer students in crisis. Touro Law School established a "Students Helping Students" program in 2010 where students volunteer to undergo training to recognize mental health problems and refer students confronting a mental health crisis.¹⁵³

28. ASSESS LAW SCHOOL PRACTICES AND OFFER FACULTY EDUCATION ON PROMOTING WELL-BEING IN THE CLASSROOM.

Law school faculty are essential partners in student well-being efforts. They often exercise powerful personal influence over students, and their classroom practices contribute enormously to the overall law school experience. Whether faculty members exercise their influence to promote student well-being depends, in part, on support of the law school culture and priorities. To support their involvement, faculty members should be invited into strategic planning to develop workable ideas. Framing strategies as helping students develop into healthy lawyers who possess grit and resilience may help foster faculty buy-in. Students' mental resilience can be viewed as a competitive advantage during their job searches and as support along their journeys as practicing lawyers toward sustainable professional and personal identities.

Educating law school faculty on how classroom practices can affect student well-being is one place to start the process of gaining faculty buy-in. For example, law professor Larry Krieger and social scientist Kennon

Sheldon identified potential culprits that undercut student well-being, including hierarchical markers of worth such as comparative grading, mandatory curves, status-seeking placement practices, lack of clear and timely feedback, and teaching practices that are isolating and intimidating.¹⁵⁴

Evaluate classroom practices for their impact on student well-being.

Because organizational practices so significantly influence student well-being, we recommend against focusing well-being efforts solely on detecting dysfunction and strengthening students' mental toughness. We recommend that law schools assess their classroom and organizational practices, make modifications where possible, and offer faculty programming on supporting student well-being while continuing to uphold high standards of excellence. Harmful practices should not be defended solely on the ground that law school has always been this way. Teaching practices should be evaluated to assess whether they are necessary to the educational experience and whether evidence supports their effectiveness.

29. EMPOWER STUDENTS TO HELP FELLOW STUDENTS IN NEED.

As noted above, students often are reluctant to seek mental health assistance from faculty members. Empowering students to assist each other can be a helpful alternative. One suggestion is to create a peer mentoring program that trains student mentors to provide support to fellow students in need. The ideal mentors would be students who are themselves in

¹⁵²Northwestern Law's well-being curriculum can be found at <http://www.law.northwestern.edu/law-school-life/student-services/wellness/curriculum/>.

¹⁵³TOURO L. SCH. STUDENTS HELPING STUDENTS (2017), available at <https://www.tourolaw.edu/uploads/Students%20Helping%20Students%20Spring17.pdf>.

¹⁵⁴See K. M. Sheldon & L. S. Krieger, *Understanding the Negative Effects of Legal Education on Law Students: A Longitudinal Test of Self-Determination Theory*, 33 PERSONALITY & SOC. PSYCH. BULL. 883 (2007); K. M. Sheldon & L. S. Krieger, *Does Legal Education Have Undermining Effects on Law Students? Evaluating Changes in Motivation, Values, and Well-Being*, 22 BEHAV. SCI. & THE LAW 261 (2004).



recovery. They should be certified by the local lawyer assistance program or another relevant organization and should be covered by the lawyer assistance program's confidentiality provisions. Peer mentors should not have a direct reporting obligation to their law school dean of students. This would help ensure confidentiality in the peer mentoring relationship and would foster trust in the law school community.¹⁵⁵

30. INCLUDE WELL-BEING TOPICS IN COURSES ON PROFESSIONAL RESPONSIBILITY.

Mental health and substance use should play a more prominent role in courses on professional responsibility, legal ethics, or professionalism. A minimum of one class session should be dedicated to the topic of substance use and mental health issues, during which bar examiners and professional responsibility professors or their designee (such as a lawyer assistance program representative) appear side-by-side to address the issues. Until students learn from those assessing them that seeking assistance will not hurt their bar admission prospects, they will not get the help they need.

31. COMMIT RESOURCES FOR ONSITE PROFESSIONAL COUNSELORS.

Law schools should have, at a minimum, a part-time, onsite professional counselor. An onsite counselor provides easier access to students in need and sends a symbolic message to the law school community that seeking help is supported and should not be stigmatized. Although the value of such a resource to students should justify the necessary budget, law schools also could explore inexpensive or no-cost assistance from lawyer assistance programs. Other possible resources may be available from the university or private sector.

32. FACILITATE A CONFIDENTIAL RECOVERY NETWORK.

Law schools should consider facilitating a confidential network of practicing lawyers in recovery from substance

use to connect with law students in recovery. Law students are entering a new community and may assume that there are few practicing lawyers in recovery. Facilitating a confidential network will provide an additional support network to help students manage the challenges of law school and maintain health. Lawyers Concerned for Lawyers is an example of a legal peer assistance group that exists in many regions that may be a confidential network source.

33. PROVIDE EDUCATION OPPORTUNITIES ON WELL-BEING-RELATED TOPICS.

33.1. Provide Well-Being Programming During the 1L Year.

We agree with the Survey of Law Student Well-Being report's recommendation that law schools should incorporate well-being topics into student orientation.¹⁵⁶ We recommend that during 1L orientation, law schools should include information about student well-being and options for dealing with stress. Communications should convey that seeking help is the best way to optimize their studies and to ensure they graduate and move successfully into law practice. Other vulnerable times during which well-being-related programming would be particularly appropriate include the period before fall final exams, the period when students receive their first set of law school grades (usually at the start of spring semester), and the period before spring final exams. The Task Force commends Southwestern Law School's IL "Peak Performance Program" and its goal of helping new law students de-stress, focus, and perform well in law school.¹⁵⁷ This voluntary program is the type of programming that can have a transformative effect on law student well-being.

33.2. Create A Well-Being Course and Lecture Series for Students.

To promote a culture of well-being, law schools should create a lecture series open to all students and a course designed to cover well-being topics in depth. Well-being

¹⁵⁵The University of Washington School of Law offers a "Peer Support Program" that includes peer counseling, that offers stress management resources, and support for multicultural engagement. More information on the program can be found at <https://www.law.uw.edu/wellness/resources/>.

¹⁵⁶Organ, Jaffe, & Bender, *supra* note 3, at 148.

¹⁵⁷Southwestern Law School, Mindfulness, Peak Performance, and Wellness Programs, <http://www.swlaw.edu/student-life/support-network/mindfulness-peak-performance-and-wellness-programs>.



has been linked to improved academic performance, and, conversely, research reflects that well-being deficits connect to impaired cognitive performance. Recent research also has found that teaching well-being skills enhances student performance on standardized tests, and improves study habits, homework submission,



Effects of Student Well-Being

- ✓ Better academic performance and cognitive functioning
- ✓ Enhanced test performance
- ✓ Improved study habits and homework quality
- ✓ Long-term academic success

grades, and long-term academic success, as well as adult education attainment, health, and wealth.¹⁵⁸ A well-being course can, for example, leverage research findings from positive psychology and neuroscience to explore the intersection of improved well-being, enhanced performance, and enriched professional identity development for law students and lawyers. Further knowledge of how to maintain well-being can enhance competence, diligence, and work

relationships—all of which are required by the ABA's Model Rules of Professional Conduct. The content of a well-being course could be guided by education reform recommendations. **Appendix E** provides content suggestions for such a course.

34. DISCOURAGE ALCOHOL-CENTERED SOCIAL EVENTS.

Although the overwhelming majority of law students are of legal drinking age, a law school sends a strong message when alcohol-related events are held or publicized with regularity. Students in recovery and those thinking about it may feel that the law school does not take the matter seriously and may be less likely to seek assistance or resources. A law school can minimize the alcohol provided; it can establish a policy whereby student organizations cannot use student funds for the purchase of alcohol.¹⁵⁹ Events at which alcohol is not the primary focus should be encouraged and supported. Further, law school faculty should refrain from drinking alcohol at law school social events.

35. CONDUCT ANONYMOUS SURVEYS RELATING TO STUDENT WELL-BEING.

Recommendation 24 for legal employers suggests regular assessment of lawyer well-being. That same Recommendation applies in the law school context.

¹⁵⁸A. Adler & M. E. P. Seligman, *Using Wellbeing for Public Policy: Theory, Measurement, and Recommendations*, 6 INT'L J. WELLBEING, 1, 17 (2016); M. A. White & A. S. Murray, *Building a Positive Institution*, in EVIDENCE-BASED APPROACHES IN POSITIVE EDUC. IN SCHS.: IMPLEMENTING A STRATEGIC FRAMEWORK FOR WELL-BEING IN SCHS. 1, 8 (M. A. White & A. S. Murray eds., 2015).

¹⁵⁹At a minimum, permission should be sought from the dean of students to serve alcohol at school-sponsored, school-located events, so administration is aware. Off-campus events should be only on a cash basis by the establishment. Professional networking events, and on campus events should be focused on the program or speaker, and not on drink specials or offers of free alcohol. Publicity of these events should avoid mention of discounted drink specials that could detract from the professional networking environment. In all instances, providing alcohol should be limited to beer and wine. Open bars not regulated by drink tickets or some other manner of controlling consumption should not be permitted.



RECOMMENDATIONS FOR LAWYERS
ASSISTANCE PROGRAMS

"It is under the greatest adversity that there exists the greatest potential for doing good, both for oneself and others." — Dalai Lama

Because lawyer assistance programs are so well-positioned to play a pivotal role in lawyer well-being, they should be adequately funded and organized to ensure that they can fulfill their potential.

Lawyer assistance programs should be supported to fulfill their full potential.

This is not consistently the case. While a lawyer assistance program exists in every state, according to the 2014 Comprehensive Survey of Lawyer Assistance Programs their structures, services, and funding vary widely. Lawyer assistance programs are organized either as agencies within bar associations, as independent agencies, or as programs within the state's court system.¹⁶² Many operate with annual budgets of less than \$500,000.¹⁶³ About one quarter operate without any funding and depend solely on volunteers.¹⁶⁴ The recommendations below are designed to equip lawyer assistance programs to best serve their important role in lawyer well-being.

44. LAWYERS ASSISTANCE PROGRAMS SHOULD BE APPROPRIATELY ORGANIZED AND FUNDED.

44.1 Pursue Stable, Adequate Funding.

Lawyer assistance programs should advocate for stable, adequate funding to provide outreach, screening, counseling, peer assistance, monitoring, and preventative education. Other stakeholders should ally themselves with lawyer assistance programs in pursuit of this funding.

44.2 Emphasize Confidentiality.

Lawyer assistance programs should highlight the confidentiality of the assistance they provide. The greatest concern voiced by lawyer assistance programs in the most recent CoLAP survey was under-utilization of their services stemming from the shame and fear of disclosure that are bound up with mental health and substance use disorders.¹⁶⁵ Additionally, lawyer assistance programs should advocate for a supreme court rule protecting the confidentiality of participants in the program, as well as immunity for those making good faith reports, volunteers, and staff.

44.3 Develop High-Quality Well-Being Programming.

Lawyer assistance programs should collaborate with other organizations to develop and deliver programs on the topics of lawyer well-being, identifying and treating substance use and mental health disorders, suicide prevention, cognitive impairment, and the like.¹⁶⁶ They should ensure that all training and other education efforts emphasize the availability of resources and the

¹⁶²2014 COMPREHENSIVE SURVEY OF LAWYER ASSISTANCE PROGRAMS, *supra* note 25, at 3.

¹⁶³*Id.* at 5.

¹⁶⁴*Id.* at 27.

¹⁶⁵*Id.* at 49-50.

¹⁶⁶Accommodating adult learning should inform program development. The Illinois Supreme Court Commission on Professionalism offers a number of resources through its "Strategies for Teaching CLE" web page, <https://www.2civility.org/programs/cle/cle-resources/strategies-for-teaching-cle/>. See also K. TAYLOR & C. MARIENAU, FACILITATING LEARNING WITH THE ADULT BRAIN IN MIND: A CONCEPTUAL AND PRACTICAL GUIDE (2016); M. Silverthorn, *Adult Learning: How Do We Learn?*, ILL. SUP. CT. COMM'N ON PROFESSIONALISM, Dec. 4, 2014, <https://www.2civility.org/adult-learning/>.

confidentiality of the process.

Lawyer assistance programs should evaluate whether they have an interest in and funding to expand their programming beyond the traditional focus on treatment of alcohol use and mental health disorders. Some lawyer assistance programs already have done so. The 2014 Comprehensive Survey of Lawyer Assistance Programs reflects that some well-resourced lawyer assistance programs include services that, for example, address transition and succession planning, career counseling, anger management, grief, and family counseling.¹⁶⁷ Increasingly, lawyer assistance programs are expanding their services to affirmatively promote well-being (rather than seeking only to address dysfunction) as a means of preventing prevalent impairments.

This expansion is consistent with some scholars' recommendations for Employee Assistance Programs that encourage engagement in a broader set of prevention and health-promotion strategies. Doing so could expand the lawyer assistance programs' net to people who are in need but have not progressed to the level of a disorder. It also could reach people who may participate in a health-promotion program but would avoid a prevention program due to social stigma.¹⁶⁸ Health-promotion approaches could be incorporated into traditional treatment protocols. For example, "Positive Recovery" strategies strive not only for sobriety but also for human flourishing.¹⁶⁹ Resilience-boosting strategies have also been proposed for addiction treatment.¹⁷⁰

44.4 Lawyer Assistance Programs' Foundational Elements.

All lawyer assistance programs should include the following foundational elements to provide effective leadership and services to lawyers, judges, and law students:

- A program director with an understanding of the legal profession and experience addressing mental health conditions, substance use disorders, and wellness issues for professionals;
- A well-defined program mission and operating policies and procedures;
- Regular educational activities to increase awareness and understanding of mental health and substance use disorders;
- Volunteers trained in crisis intervention and assistance;
- Services to assist impaired members of the legal profession to begin and continue recovery;
- Participation in the creation and delivery of interventions;
- Consultation, aftercare services, voluntary and diversion monitoring services, referrals to other professionals, and treatment facilities; and
- A helpline for individuals with concern about themselves or others.¹⁷¹

¹⁶⁷2014 COMPREHENSIVE SURVEY OF LAWYER ASSISTANCE PROGRAMS, *supra* note 25, at 13.

¹⁶⁸R. F. Cook, A. S. Back, J. Trudeau, & T. McPherson, *Integrating Substance Abuse Prevention into Health Promotion Programs in the Workplace: A Social Cognitive Intervention Targeting the Mainstream User*, in PREVENTING WORKPLACE SUBSTANCE ABUSE: BEYOND DRUG TESTING TO WELLNESS 97-133 (J. B. Bennett, W. K. Lehman eds., 2003).

¹⁶⁹J. Z. POWERS, POSITIVE RECOVERY DAILY GUIDE: THRIVE IN RECOVERY (2015).

¹⁷⁰T. Alim, W. Lawson, A. Neumeister, et al., *Resilience to Meet the Challenge of Addiction: Psychobiology and Clinical Considerations*, 34 ALCOHOL RESEARCH: CURRENT REVIEWS 506 (2012).

¹⁷¹See AM. BAR ASS'N, MODEL LAWYER ASSISTANCE PROGRAM (Revised 2004), available at http://www.americanbar.org/content/dam/aba/administrative/lawyer_assistance/ls_colap_model_lawyer_assistance_program.authcheckdam.pdf; AM. BAR ASS'N, GUIDING PRINCIPLES FOR A LAWYER ASSISTANCE PROGRAM (1991), available at http://www.americanbar.org/content/dam/aba/administrative/lawyer_assistance/ls_colap_guiding_principles_for_assistance.authcheckdam.pdf.



CONCLUSION

"It always seems impossible until it's done." — Nelson Mandela

AThis Report makes a compelling case that the legal profession is at a crossroads. Our current course, one involving widespread disregard for lawyer well-being and its effects, is not sustainable. Studies cited above show that our members suffer at alarming rates from conditions that impair our ability to function at levels compatible with high ethical standards and public expectations. Depression, anxiety, chronic stress, burnout, and substance use disorders exceed those of many other professions. We have ignored this state of affairs long enough. To preserve the public's trust and maintain our status as a self-regulating profession, we must truly become "our brothers' and sisters' keepers," through a strong commitment to caring for the well-being of one another, as well as ourselves.

The members of the National Task Force for Lawyer Well-Being urge all stakeholders identified in this report to take action. To start, please review the State Action Plan and Checklist that follows in **Appendix A**. If you are a leader in one of these sectors, please use your authority to call upon your cohorts to come together and develop

a plan of action. Regardless of your position in the legal profession, please consider ways in which you can make a difference in the essential task of bringing about a

*We have the capacity
to create a better
future for our lawyers.*

culture change in how we, as lawyers, regard our own well-being and that of one another.

As a profession, we have the capacity to face these challenges and create a better future for our lawyers that is sustainable. We can do so—not in spite of—but in pursuit of the highest professional standards, business practices, and ethical ideals.

¹P. R. Krill, R. Johnson, & L. Albert, *The Prevalence of Substance Use and Other Mental Health Concerns Among American Attorneys*, 10 J. ADDICTION MED. 46 (2016).

²A. M. Brafford, *Building the Positive Law Firm: The Legal Profession At Its Best* (August 1, 2014) (Master's thesis, Univ. Pa., on file with U. Pa. Scholarly Commons Database), available at http://repository.upenn.edu/mapp_capstone/62/.

³J. M. Organ, D. Jaffe, & K. Bender, *Suffering in Silence: The Survey of Law Student Well-Being and the Reluctance of Law Students to Seek Help for Substance Use and Mental Health Concerns*, 66 J. LEGAL EDUC. 116 (2016).

⁴See D. L. Chambers, *Overstating the Satisfaction of Lawyers*, 39 LAW & SOC. INQUIRY 1 (2013).

⁵J. M. Organ, *What Do We Know About the Satisfaction/Dissatisfaction of Lawyers? A Meta-Analysis of Research on Lawyer Satisfaction and Well-Being*, 8 U. ST. THOMAS L. J. 225 (2011); L. S. Krieger & K. M. Sheldon, *What Makes Lawyers Happy? Transcending the Anecdotes with Data from 6200 Lawyers*, 83 GEO. WASH. L. REV. 554 (2015).

APPENDIX A

National Task Force on Lawyer Well-Being State Action Plan & Checklist

Chief Justice (or Designee) "To Do List"

Gather all stakeholders

(Identify leaders in the jurisdiction with an interest in and commitment to well-being issues. Bring these leaders together in a Commission on Lawyer Well-Being. The attached list of potential stakeholder representatives offers guidance.)

Review the Task Force Report

Have Commission members familiarize themselves with the Task Force Report. It provides concrete recommendations for how to address lawyer well-being issues.

Do an inventory of recommendations

(Next, assess which recommendations can be implemented in the jurisdiction. This includes an assessment of the leadership and resources required to implement these recommendations.)

Create priorities

(Each jurisdiction will have its own priorities based on the inventory of recommendations. Which ones are the most urgent? Which ones will create the most change? Which ones are feasible?)

Develop an action plan

(Having inventoried the recommendations and prioritized them, now is the time to act. What does that path forward look like? Who needs to be involved? How will progress be measured?)

National Task Force on Lawyer Well-Being State Action Plan & Checklist

Checklist for Gathering the Stakeholders

Item 1 of the Plan above recommends the gathering of stakeholders as a first step. The National Task Force suggests the Chief Justice of each state create a Commission on Lawyer Well-Being in that state and appoint representatives from each stakeholder group to the Commission. Below is a checklist of potential stakeholder representatives the Chief Justice may consider in making appointments.

JUDICIAL

- ☐ Supreme Court Chief Justice or designated representative
- ☐ Other judge representatives

LAWYER ASSISTANCE PROGRAM (LAP)

- ☐ LAP Director
- ☐ Clinical director
- ☐ Lawyer representative to the LAP

LAW SCHOOLS

- ☐ Dean representative
- ☐ Faculty representative
- ☐ Law student representative

REGULATORS

- ☐ Admissions (or Board of Law Examiners) representative
- ☐ Mandatory CLE program representative
- ☐ CLE provider representative
- ☐ Regulation/Bar/Disciplinary Counsel representative

BAR ASSOCIATIONS

- ☐ Bar president
- ☐ Bar president-elect
- ☐ Executive director
- ☐ Young lawyer division representative
- ☐ Specialty bar representative

LAW FIRMS

- ☐ Sole practitioner
- ☐ Small firm representative (2-5 lawyers)
- ☐ Medium firm representative (6-15 lawyers)
- ☐ Large firm representative (16+ lawyers)
- ☐ In-house counsel representative
- ☐ Non-traditional lawyer representative

ALLIES

- ☐ ASAM representative (addiction psychiatrist)
- ☐ Organizational/behavioral psychologist
- ☐ Members of the public

APPENDIX B

*Appendix to Recommendation 8:
Example Educational Topics About Lawyer Distress and Well-Being*

Recommendation 8 advises stakeholders to provide high-quality education programs and materials on causes and consequences of lawyer distress and well-being. Below is a list of example educational topics for such programming with empirical support.

8.1 Work Engagement vs. Burnout

The work engagement-burnout model can serve as a general organizing framework for stakeholders' efforts to boost lawyer well-being and curb dysfunction. Work engagement is a kind of work-related well-being. It includes high levels of energy and mental resilience, dedication (which includes a sense of meaningfulness, significance, and challenge), and frequently feeling positively absorbed in work.¹⁷² Work engagement contributes to, for example, mental health, less stress and burnout, job satisfaction, helping behaviors, reduced turnover, performance, and profitability.¹⁷³

Burnout is essentially the opposite of engagement. It is a stress response syndrome that is highly correlated with depression and can have serious psychological and physiological effects. Workers experiencing burnout feel emotionally and physically exhausted, cynical about the value of their activities, and uncertain about their capacity to perform well.¹⁷⁴

The work engagement-burnout model proposes the idea of a balance between resources and demands: Engagement arises when a person's resources (i.e., positive individual, job, and organizational factors, like autonomy, good leadership, supportive colleagues, feedback, interesting work, optimism, resilience) outweigh demands (i.e., draining aspects of the job, like work overload and conflicting demands). But when excessive demands or a lack of recovery from demands tip the scale, workers are in danger of burnout. Disengagement, alienation, and turnover become likely. Resources contribute to engagement; demands feed burnout. Using this framework as a guide, stakeholders should develop lawyer well-being strategies that focus on increasing individual and organizational resources and decreasing demands when possible.¹⁷⁵

The incidence of burnout vs. work engagement in the legal profession is unknown but has been well-studied in the medical profession. Research has found that 30-40 percent of licensed physicians, 49 percent of medical students, and 60 percent of new residents meet the definition of burnout, which is associated with an increased risk of depression, substance use, and suicidal thinking.¹⁷⁶ Burnout also undermines professionalism and quality of patient care by eroding honesty, integrity, altruism, and self-regulation.¹⁷⁷

The medical profession's work on these issues can serve as a guide for the legal profession. It has conducted

¹⁷²W. B. Schaufeli, *What is Engagement?*, in EMPLOYEE ENGAGEMENT IN THEORY AND PRACTICE (C. Truss, K. Alfes, R. Delbridge, A. Shantz, & E. Soane eds., 2013).

¹⁷³C. Bailey, A. Madden, K. Alfes, & L. Fletcher, *The Meaning, Antecedents and Outcomes of Employee Engagement: A Narrative Synthesis*, 19 INT'L J. MGMT. REV. 19 (2017); BRAFFORD, *supra* note 131; GALLUP, INC., ENGAGEMENT AT WORK: ITS EFFECT ON PERFORMANCE CONTINUES IN TOUGH ECONOMIC TIMES (2013), available at <http://www.gallup.com/services/176657/engagement-work-effect-performance-continues-tough-economic-times.aspx>.

¹⁷⁴Maslach, Schaufeli, & Leiter, *supra* note 121.

¹⁷⁵A. B. Bakker & E. Demerouti, *Job Demands-Resources Theory: Taking Stock and Looking Forward*, J. OCCUPATIONAL HEALTH PSYCHOL. (2016), advance online publication available at <http://dx.doi.org/10.1037/ocp0000056>; A. B. Bakker, *Top-Down and Bottom-Up Interventions to Increase Work Engagement*, in AM. PSYCHOL. ASS'N HANDBOOK OF CAREER INTERVENTION: VOL. 2. APPLICATIONS 427-38 (P. J. Hartung, M. L. Savickas, & W. B. Walsh eds., 2015); BRAFFORD, *supra* note 131.

¹⁷⁶L. Dyrbye, T. Shanafelt, *Physician Burnout: A Potential Threat to Successful Health Care Reform*, 305 J. AM. MED. ASS'N 2009 (2009); L. Dyrbye & T. Shanafelt, *A Narrative Review of Burnout Experienced by Medical Students and Residents*, 50 MED. EDUC. 132 (2016); J. J. Hakanen & W. B. Schaufeli, *Do Burnout and Work Engagement Predict Depressive Symptoms and Life Satisfaction? A Three-Wave Seven-Year Prospective Study*, 141 J. AFFECTIVE DISORDERS 415 (2012).

¹⁷⁷Dyrbye & Shanafelt, *supra* note 176; T. L. Schwenk, *Resident Depression: The Tip of a Graduate Medical Education Iceberg*, 314 J. AM. MED. ASS'N 2357 (2015).

hundreds of studies, has identified many individual and organizational contributors to burnout, and has proposed wellness strategies and resilience programs.¹⁷⁸ Bi-annually, the American Medical Association (AMA) co-sponsors an International Conference on Physician Health. The September 2016 conference was held in Boston with the theme, “Increasing Joy in Medicine.” The conference included 70 presentations, workshops, and plenary speaker sessions on a wide variety of well-being topics over a three-day period (See AMA website).

8.2 Stress

Stress is inevitable in lawyers’ lives and is not necessarily unhealthy.¹⁷⁹ Mild to moderate levels of stress that are within our capability can present positive challenges that result in a sense of mastery and accomplishment.¹⁸⁰ Much of our daily stress is governed by our beliefs about our coping abilities.¹⁸¹ When stress is perceived as a positive, manageable challenge, the stress response actually can enable peak performance.¹⁸² For example, in a study of a New Zealand law firm, researchers found that lawyers who frequently experience positive challenge reported the highest levels of work engagement. The researchers also found that, where lawyers felt overburdened by work, they were more likely to experience burnout.¹⁸³

This finding highlights the importance of positive challenge but also its paradoxical effect: Challenge contributes to work-related well-being, but it also can lead to negative

consequences like burnout when it becomes overwhelming. Stressors that pose the greatest risk of harm are those that are uncontrollable, ambiguous, unpredictable, and chronic that we perceive as exceeding our ability to cope.¹⁸⁴ Such stressors increase the rise of (or exacerbate) depression, anxiety, burnout, alcohol abuse, and physical conditions such as cardiovascular, inflammatory, and other illnesses that can affect lawyers’ health and capacity to practice.¹⁸⁵ For example, in a 2004 study of North Carolina lawyers, more than half had elevated levels of perceived stress, and this was the highest predictor of depression of all factors in the study.¹⁸⁶

Stress also is associated with cognitive decline, including impaired attention, concentration, memory, and problem-solving.¹⁸⁷ Stress also can harm one’s ability to establish strong relationships with clients and is associated with relational conflict, which can further undermine lawyers’ ability to competently represent and interact with clients. Both personal and environmental factors in the workplace contribute to stress and whether it positively fuels performance or impairs mental health and functioning.¹⁸⁸ Research reflects that organizational factors more significantly contribute to dysfunctional stress responses than individual ones, and that the most effective prevention strategies target both.¹⁸⁹

8.3 Resilience & Optimism

The American Psychological Association defines resilience

¹⁷⁸E.g., J. Brennan & A. McGrady, *Designing and Implementing a Resiliency Program for Family Medicine Residents*, 50 INT’L J. PSYCHIATRY MED. 104 (2015); J. Eckleberry-Hunt, A. Van Dyke, D. Lick, & J. Tucciarone, *Changing the Conversation from Burnout to Wellness: Physician Well-Being in Residency Training Programs*, 1 J. GRADUATE MED. EDUC. 225 (2009); R. M. Epstein & M. S. Krasner, *Physician Resilience: What It Means, Why It Matters, and How to Promote It*, 88 ACAD. MED. 301 (2013); A. Nedrow, N. A. Steckler, & J. Hardman, *Physician Resilience and Burnout: Can You Make the Switch?* 20 FAMILY PRAC. MGMT. 25 (2013).

¹⁷⁹A. ELWORK, *STRESS MANAGEMENT FOR LAWYERS* (2007).

¹⁸⁰K. M. Keyes, M. L. Hatzenbuehler, B. F. Grant, & D. S. Hasin, *Stress and Alcohol: Epidemiologic Evidence*, 34 ALCOHOL RES.: CURRENT REV. 391 (2012).

¹⁸¹J. B. Avey, F. Luthans, & S. M. Jensen, *Psychological Capital: A Positive Resource for Combating Employee Stress and Turnover*, 48 HUMAN RES. MGMT. 677 (2009).

¹⁸²BRAFFORD, *supra* note 131; Crum, Salovey, Achor, *supra* note 50; K. McGonigal, *THE UPSIDE OF STRESS: WHY STRESS IS GOOD FOR YOU, AND HOW TO GET GOOD AT IT* (2015).

¹⁸³V. Hopkins & D. Gardner, *The Mediating Role of Work Engagement and Burnout in the Relationships Between Job Characteristics and Psychological Distress Among Lawyers*, 41 N. Z. J. PSYCHOL. 59 (2012).

¹⁸⁴R. M. Anthenelli, *Overview: Stress and Alcohol Use Disorders Revisited*, 34 ALCOHOL RES.: CURRENT REV. 386 (2012).

¹⁸⁵E.g., S. M. Southwick, G. A. Bonanno, A. S. Masten, C. Panter-Brick, & R. Yehuda, *Resilience Definitions, Theory, and Challenges: Interdisciplinary Perspectives*, 5 EUR. J. PSYCHOTRAUMATOLOGY 1 (2014); M. R. Frone, *Work Stress and Alcohol Use*, 23 ALCOHOL RES. & HEALTH 284 (1999); C. Hammen, *Stress and Depression*, 1 ANN. REV. CLINICAL PSYCHOL. 293 (2005); Keyes, Hatzenbuehler, Grant, & Hasin, *supra* note 180; J. Wang, *Work Stress as a Risk Factor for Major Depressive Episode(s)*, 35 PSYCHOL. MED. 865 (2005); J.-M. Woo & T. T. Postolache, *The Impact of Work Environment on Mood Disorders and Suicide: Evidence and Implications*, 7 INT’L J. DISABILITY & HUMAN DEV. 185 (2008).

¹⁸⁶M. H. Howerton, *The Relationship Between Attributional Style, Work Addiction, Perceived Stress, and Alcohol Abuse on Depression in Lawyers in North Carolina* (2004) (doctoral dissertation, Univ. of N.C. at Charlotte) (available from ProQuest Dissertations and Theses database).

¹⁸⁷B. S. McEwen, & R. M. Sapolsky, *Stress and Cognitive Function*, 5 CURRENT OPINION IN NEUROBIOLOGY 205-216 (1995); L. Schwabe & O. T. Wolf, *Learning Under Stress Impairs Memory Formation*, 93 NEUROBIOLOGY OF LEARNING & MEMORY 183 (2010); S. Shapiro, J. Astin, S. Bishop, & M. Cordova, *Mindfulness-Based Stress Reduction and Health Care Professionals: Results from a Randomized Controlled Trial*, 12 INT’L J. STRESS MGMT. 164 (2005).

¹⁸⁸J. C. QUICK, T. A. WRIGHT, J. A. ADKINS, D. L. NELSON, & J. D. QUICK, *PREVENTIVE STRESS MANAGEMENT IN ORGANIZATIONS* (2013).

¹⁸⁹Maslach, Schaufeli, & Leiter, *supra* note 121.

as a process that enables us to bounce back from adversity in a healthy way. It also has been defined as a “process to harness resources to sustain well-being”¹⁹⁰—a definition that connects resilience to the resource-balancing framework of the work engagement-burnout model discussed above. Our capacity for resilience derives from a host of factors, including genetics and childhood experiences that influence the neurobiology of our stress response—specifically, whether the stress response is both activated and terminated efficiently.¹⁹¹

But resilience also derives from a collection of psychological, social, and contextual factors—many of which we can change and develop. These include, for example, optimism, confidence in our abilities and strengths (self-efficacy), effective problem-solving, a sense of meaning and purpose, flexible thinking, impulse control, empathy, close relationships and social support, and faith/spirituality.¹⁹² A model for developing many of these psychological and social competencies is provided by the U.S. Army’s Master Resilience Training program.¹⁹³ As noted above, the medical profession also has designed resilience programs for physicians and residents that can serve as guides, and researchers have offered additional strategies.¹⁹⁴

Among the most important of the personal competencies is optimistic explanatory style, which is a habit of thought that allows people to put adverse events in a rational context and not be overwhelmed by catastrophic thinking. The principal strategy for building optimistic explanatory style is by teaching cognitive reframing based on cognitive-behavioral therapy research.¹⁹⁵ The core of the technique is to teach people to monitor and dispute their automatic

negative self-talk. Neurobiology scholars recently have argued that this capacity is so important to our regulation of stress that it constitutes the cornerstone of resilience.¹⁹⁶

This skill can benefit not only practicing lawyers but also law students.¹⁹⁷ Stanford Law, for example, has offered a 3-hour course teaching cognitive framing that has been popular and successful.¹⁹⁸ Lawyer assistance programs also could benefit from learning this and other resilience strategies, which have been used in addiction treatment.¹⁹⁹

Aside from individual-level skills and strengths, developing “structural resilience” also is important, if not more important. This requires leaders to develop organizations and institutions that are resource-enhancing to help give people the wherewithal to realize their full potential.²⁰⁰ Individual resilience is highly dependent on the context in which people are embedded. This means that initiatives to foster lawyer well-being should take a systemic perspective.

8.4 Mindfulness Meditation

Mindfulness meditation is a practice that can enhance cognitive reframing (and thus resilience) by aiding our ability to monitor our thoughts and avoid becoming emotionally overwhelmed. A rapidly growing body of research on meditation has shown its potential for help in addressing a variety of psychological and psychosomatic disorders, especially those in which stress plays a causal role.²⁰¹ One type of meditative practice is mindfulness—a technique that cultivates the skill of being present by focusing attention on your breath and detaching from your thoughts or feelings. Research has found that mindfulness can reduce rumination, stress, depression, and anxiety.²⁰² It

¹⁹⁰ Southwick, Bonanno, Masten, Panter-Brick, & Yehuda, *supra* note 185.

¹⁹¹ Alim, Lawson, & Neumeister, et al., *supra* note 170.

¹⁹² K. J. Reivich, M. E. P. Seligman, & S. McBride, *Master Resilience Training in the U.S. Army*, 66 AM. PSYCHOLOGIST 25 (2011); C. D. Schetter & C. Dolbier, *Resilience in the Context of Chronic Stress and Health in Adults*, 5 SOC. PERSONAL PSYCHOL. COMPASS 634 (2011).

¹⁹³ Id.; R. R. SINCLAIR, & T. A. BRITT, BUILDING PSYCHOLOGICAL RESILIENCE IN MILITARY PERSONNEL: THEORY AND PRACTICE (2013).

¹⁹⁴ C. COOPER, J. FLINT-TAYLOR, & M. PEARIN, BUILDING RESILIENCE FOR SUCCESS: A RESOURCE GUIDE FOR MANAGERS AND ORGANIZATIONS (2013); I. T. Robertson, C. L. Cooper, M. Sarkar, & T. Curran, *Resilience Training in the Workplace from 2003 to 2014: A Systematic Review*, 88 J. OCCUPATIONAL & ORG. PSYCHOL. 533 (2015).

¹⁹⁵ Id.

¹⁹⁶ R. Kalisch, M. B. Muler, & O. Tuscher, *A Conceptual Framework for the Neurobiological Study of Resilience*, 27 BEHAV. & BRAIN SCI. 1 (2014).

¹⁹⁷ C. Rosen, *Creating the Optimistic Classroom: What Law Schools Learn from Attribution Style Effects*, 42 MCGEORGE L. REV. 319 (2011).

¹⁹⁸ Stanford Law Professor Joe Bankman’s use of cognitive behavioral therapy concepts are described on the school’s website: <http://news.stanford.edu/2015/04/07/bankman-law-anxiety-040715>. He has posted relevant materials to educate other law schools how to teach this skill: <http://www.colorado.edu/law/sites/default/files/Bankman%20-%20Materials%20for%20Anxiety%20Psychoeducation%20Course.pdf>.

¹⁹⁹ Alim, Lawson, & Neumeister, *supra* note 170.

²⁰⁰ BRAFFORD, *supra* note 131; Southwick, Bonanno, Masten, Panter-Brick, & Yehuda, *supra* note 185.

²⁰¹ R. Walsh & S. L. Shapiro (2006), *The Meeting of Meditative Disciplines and Western Psychology*, 61 AM. PSYCHOL. 227 (2006).

²⁰² E.g., S. G. Hoffman, A. T. Sawyer, A. A. Witt, & D. Oh, *The Effect of Mindfulness-Based Therapy on Anxiety and Depression: A Meta-Analytic Review*, 78 J. CONSULTING & CLINICAL PSYCHOL. 169 (2010); R. Teper, Z. V. Segal, & M. Inzlicht, *Inside the Mindful Mind: How Mindfulness Enhances Emotion Regulation Through Improvements in Executive Control*, 22 CURRENT DIRECTIONS IN PSYCHOL. SCI. 449.

also can enhance a host of competencies related to lawyer effectiveness, including increased focus and concentration, working memory, critical cognitive skills, reduced burnout, and ethical and rational decision-making.²⁰³ Multiple articles have advocated for mindfulness as an important practice for lawyers and law students.²⁰⁴ Evidence also suggests that mindfulness can enhance the sense of work-life balance by reducing workers' preoccupation with work.²⁰⁵

8.5 Rejuvenation Periods to Recover From Stress

Lawyers must have downtime to recover from work-related stress. People who do not fully recover are at an increased risk over time for depressive symptoms, exhaustion, and burnout. By contrast, people who feel recovered report greater work engagement, job performance, willingness to help others at work, and ability to handle job demands.²⁰⁶ Recovery can occur during breaks during the workday, evenings, weekends, vacations, and even microbreaks when transitioning between projects.²⁰⁷ And the quality of employees' recovery influences their mood, motivation, and job performance.

Researchers have identified four strategies that are most effective for recovering from work demands: (1) psychological detachment (mentally switching off from work), (2) mastery experiences (challenges and learning experiences), (3) control (spending time off as we choose), and (4) relaxation.²⁰⁸ Falling into the second category is physical activity (exercise and sports), which may be an

especially effective form of recovery for people performing mentally demanding work—like lawyers. This is so because low-effort activities (e.g., watching TV) may actually increase subjective feelings of fatigue.²⁰⁹

Quality sleep is critically important in the recovery process.²¹⁰ Sleep deprivation has been linked to a multitude of health problems that decay the mind and body, including depression, cognitive impairment, decreased concentration, and burnout. Cognitive impairment associated with sleep-deprivation can be profound. For example, a study of over 5,000 people showed that too little sleep was associated with a decline over a five year-period in cognitive functioning, including reasoning, vocabulary, and global cognitive status. Research on short-term effects of sleep deprivation shows that people who average four hours of sleep per night for four or five days develop the same cognitive impairment as if they had been awake for 24 hours—which is the equivalent of being legally drunk.²¹¹ Given lawyers' high risk for depression, it is worth noting evidence that sleep problems have the highest predictive value for who will develop clinical depression.²¹²

8.6 Physical Activity

Many lawyers' failure to prioritize physical activity is harmful to their mental health and cognitive functioning. Physical exercise is associated with reduced symptoms of anxiety and low energy. Aerobic exercise has been found to be as effective at improving symptoms of depression

²⁰³A. P. Jha, E. A. Stanley, W. L. Kiyonaga, & L. Gelfand, *Examining the Protective Effects of Mindfulness Training on Working Memory Capacity and Affective Experience*, 10 *EMOTION* 56 (2010); D. Levy, J. Wobbrock, A. W. Kaszniak, & M. Ostergren, *The Effects of Mindfulness Meditation Training on Multitasking in a High-Stress Environment*, *Proceedings of Graphics Interface Conference* (2012), available at <http://faculty.washington.edu/wobbrock/pubs/gi-12.02.pdf>; M. D. Mrazek, M. S. Franklin, D. T. Phillips, B. Baird, & J. W. Schooler, *Mindfulness Training Improves Working Memory Capacity and GRE Performance While Reducing Mind Wandering*, 24 *PSYCHOL. SCI.* 776 (2013); N. E. Ruedy & M. E. Schweizer, *In the Moment: The Effect of Mindfulness on Ethical Decision Making*, 95 *J. BUS. ETHICS* 73 (2010); F. Zeidan, S. K. Johnson, B. J. Diamond, Z. David, & P. Goolkasian, *Mindfulness Meditation Improves Cognition: Evidence of Brief Mental Training*, 19 *CONSCIOUSNESS & COGNITION* 597 (2010).

²⁰⁴E.g., W. S. Blatt, *What's Special About Meditation? Contemplative Practice for American Lawyers*, 7 *HARV. NEGOT. L. REV.* 125 (2002); Peter H. Huang, *How Improving Decision-Making and Mindfulness Can Improve Legal Ethics and Professionalism*, 21 *J. L. BUS. & ETHICS* 35 (2014).

²⁰⁵A. Michel, C. Bosch, & M. Rexroth, *Mindfulness as a Cognitive-Emotional Segmentation Strategy: An Intervention Promoting Work-Life Balance*, 87 *J. OCCUPATIONAL & ORGANIZATIONAL PSYCHOL.* 733 (2014).

²⁰⁶See, e.g., C. Fritz, A. M. Ellis, C. A. Demsky, B. C. Lin, & F. Guros, *Embracing Work Breaks: Recovery from Work Stress*, 42 *ORG. DYNAMICS* 274 (2013); N. P. Rothbard & S. V. Patil, *Being There: Work Engagement and Positive Organizational Scholarship*, in *THE OXFORD HANDBOOK OF POSITIVE ORGANIZATIONAL SCHOLARSHIP* 56-68 (K. S. Cameron & G. M. Spreitzer eds., Oxford University Press 2012).

²⁰⁷S. Sonnentag, C. Niessen, & A. Neff, *Recovery: Nonwork Experiences that Promote Positive States*, in Cameron & Spreitzer, *supra* note 206.

²⁰⁸BRAFFORD, *supra* note 131; V. C. Hahn, C. Binnewies, S. Sonnentag, & E. J. Mojza, *Learning How to Recover from Job Stress: Effects of a Recovery Training Program on Recovery, Recovery-Related Self-Efficacy, and Well-Being*, 16 *J. OCCUPATIONAL HEALTH PSYCHOL.* 202 (2011).

²⁰⁹J. W. Rook & F. R. H. Zijlstra, *The Contribution of Various Types of Activities to Recovery*, 15 *EUROPEAN J. WORK & ORGANIZATIONAL PSYCHOL.* 218 (2006).

²¹⁰M. Soderstrom, J. Jeding, M. Ekstedt, A. Perski, & T. Akerstedt, *Insufficient Sleep Predicts Clinical Burnout*, 17 *J. OCCUPATIONAL HEALTH PSYCHOL.* 175 (2012).

²¹¹J. E. Ferrie, M. J. Shipley, T. N. Akbaraly, M. G. Marmot, M. Kivimaki, & A. Singh-Manoux, *Change in Sleep Duration and Cognitive Function: Findings from the Whitehall II Study*, 34 *SLEEP* 565-73 (2011); B. Fryer, *Sleep Deficit: The Performance Killer*, *HARV. BUS. REV.*, Oct. 2006, available at <http://hbr.org/2006/10/sleep-deficit-the-performance-killer>; S. Maxon, *How Sleep Deprivation Decays the Mind and Body*, *THE ATLANTIC*, December 2013, available at <http://www.theatlantic.com/health/archive/2013/12/how-sleep-deprivation-decays-the-mind-and-body/282395>.

²¹²P. L. Franzen, & D. J. Buysse, *Sleep Disturbances and Depression: Risk Relationships for Subsequent Depression and Therapeutic Implications*, 10 *DIALOGUES IN CLINICAL NEUROSCIENCE* 473 (2008).

as antidepressant medication and psychotherapy.²¹³ In a review of strategies for preventing workplace depression, researchers found that interventions to increase physical activity were among the most effective.²¹⁴

Research also shows that physical exercise improves brain functioning and cognition. Physical activity, which stimulates new cell growth in the brain, can offset the negative effects of stress, which causes brain atrophy. Greater amounts of physical activity (particularly aerobic) have been associated with improvements in memory, attention, verbal learning, and speed of cognitive processing.²¹⁵ A growing body of evidence reflects that regular aerobic activity in middle age significantly reduces the risk of developing dementia and, in older age, can slow the progression of cognitive decline of those who already are diagnosed with Alzheimer's disease.²¹⁶

8.7 Leader Development and Training

Leader development and training is critically important for supporting lawyer well-being and optimal performance. Low-quality leadership is a major contributor to stress, depression, burnout, and other mental and physical health disorders.²¹⁷ Even seemingly low-level incivility by leaders can have a big impact on workers' health and motivation. Research found harmful effects from leaders, for example, playing favorites; criticizing unfairly; and failing to provide information, listen to problems, explain goals, praise good work, assist with professional development,

and show that they cared. On the other hand, positive leadership styles contribute to subordinates' mental health, work engagement, performance, and job satisfaction.²¹⁸ Many studies confirm that positive leader behaviors can be trained and developed.²¹⁹ Training is important for all levels of lawyers who supervise others. This is so because leaders with the most direct contact with subordinates have the most significant impact on their work experience.²²⁰ Subordinates' immediate leader drives almost 70 percent of their perceptions of the workplace.²²¹

8.8 Control and Autonomy

As noted in Recommendation 7, feeling a lack of control over work is a well-established contributor to poor mental health, including depression and burnout. A sense of autonomy is considered to be a basic psychological need that is foundational to well-being and optimal functioning.²²² Research confirms that leaders can be trained to be more autonomy-supportive.²²³ Other organizational practices that can enhance a sense of autonomy include, for example, structuring work to allow for more discretion and autonomy and encouraging lawyers to craft aspects of their jobs to the extent possible to best suit their strengths and interests.²²⁴

The benefits of autonomy-support are not limited to manager-subordinate relationships for legal employers. Research reflects that law students with autonomy-supportive professors and school cultures have higher well-being and performance.²²⁵ Lawyer-client relationships also

²¹³H. Chu, J. Buckworth, T. E. Kirby, & C. F. Emery, *Effect of Exercise Intensity on Depressive Symptoms in Women*, 2 MENTAL HEALTH AND PHYSICAL ACTIVITY 37 (2009); M. P. Herring, M. L. Jacob, C. Suveg, & P. J. O'Connor, *Effects of Short-Term Exercise Training on Signs and Symptoms of Generalized Anxiety Disorder*, 4 MENTAL HEALTH & PHYSICAL ACTIVITY 71 (2011).

²¹⁴S. Joyce, M. Modini, H. Christensen, A. Mykletun, R. Bryant, P. B. Mitchell, & S. B. Harvey, *Workplace Interventions for Common Mental Disorders: A Systematic Meta-Review*, 46 PSYCHOL. MED. 683 (2016).

²¹⁵A. Kandola, J. Hendrikse, P. J. Lucassen, & M. Yücel, *Aerobic Exercise as A Tool to Improve Hippocampal Plasticity and Function in Humans: Practical Implications for Mental Health Treatment*, 10 FRONTIERS IN HUMAN NEUROSCIENCE 373 (2016).

²¹⁶*Id.*; J. E. Ahlskog, Y. E. Geda, N. R. Graff-Radford, & R. C. Petersen, *Physical Exercise as a Preventive or Disease-Modifying Treatment of Dementia and Brain Aging*, 86 MAYO CLINIC PROC. 876 (2011).

²¹⁷BRAFFORD, *supra* note 131; R. J. BURKE AND K. M. PAGE, RESEARCH HANDBOOK ON WORK AND WELL-BEING (2017); W. Lin, L. Wang, & S. Chen, *Abusive Supervision and Employee Well-Being: The Moderating Effect of Power Distance Orientation*, 62 APPLIED PSYCHOL.: AN INT'L REV. 308 (2013); E. K. Kelloway, N. Turner, J. Barling, & C. Loughlin, *Transformational Leadership and Employee Psychological Well-Being: The Mediating Role of Employee Trust in Leadership*, 26 WORK & STRESS 39 (2012).

²¹⁸E.g., A. Amankwaa & O. Anku-Tsedee, *Linking Transformational Leadership to Employee Turnover: The Moderating Role of Alternative Job Opportunity*, 6 INT'L J. BUS. ADMIN. 19 (2015); J. Perko, U. Kinnunen, & T. Feldt, *Transformational Leadership and Depressive Symptoms Among Employees: Mediating Factors*, 35 LEADERSHIP & ORG. DEV. J. 286 (2014); M. Y. Ghadi, M. Fernando, & P. Caputi, *Transformational Leadership and Work Engagement*, 34 LEADERSHIP & ORG. DEV. J. 532 (2013).

²¹⁹E.g., B. J. Avolio & B. M. Bass, *You Can Drag a Horse to Water, But You Can't Make It Drink Except When It's Thirsty*, 5 J. LEADERSHIP STUDIES 1 (1998); K. E. Kelloway, J. Barling, & J. Helleur, *Enhancing Transformational Leadership: The Roles of Training and Feedback*, 21 LEADERSHIP & ORG. DEV. J. 145 (2000).

²²⁰D. J. Therkelsen & C. L. Fiebich, *The Supervisor: The Linchpin of Employee Relations*, 8 J. COMM. MGMT. 120 (2003).

²²¹R. Beck & J. Harter, *Managers Account for 70% of Variance in Employee Engagement*, GALLUP BUS. J., April 21, 2015, available at <http://www.gallup.com/businessjournal/182792/managers-account-variance-employee-engagement.aspx>.

²²²BRAFFORD, *supra* note 131; Y.-L. Su & J. Reeve, *A Meta-Analysis of the Effectiveness of Intervention Programs Designed to Support Autonomy*, 23 EDUC. PSYCHOL. REV. 159 (2011).

²²³*Id.*

²²⁴See G. R. Slemp & D. A. Vella-Brodick, *Optimising Employee Mental Health: The Relationship Between Intrinsic Need Satisfaction, Job Crafting, and Employee Well-Being*, 15 J. HAPPINESS STUDIES 957 (2014); D. T. Ong & V. T. Ho, *A Self-Determination Perspective of Strengths Use at Work: Examining Its Determinant and Performance Implications*, 11 J. POSITIVE PSYCHOL. 15 (2016).

²²⁵E.g., Sheldon & Krieger, *supra* note 5; see also G. F. Hess, *Collaborative Course Design: Not My Course, Not Their Course, But Our Course*, 47 WASHBURN L.J. 367 (2008).

can be enhanced by autonomy-supportive behaviors by both parties. Lawyers respect client autonomy by, for example, taking full account of their perspectives, not interrupting, affording choice, offering information respectfully, providing a rationale for recommendations, sharing power in decision-making (when appropriate), and accepting clients' decisions.²²⁶ In the medical profession, this model of client-centered care has been found to result in better outcomes, patient satisfaction, and diminished risk of malpractice lawsuits.²²⁷

8.9 Conflict Management

Our legal system is adversarial—it's rooted in conflict. Even so, lawyers generally are not trained on how to constructively handle conflict and to adapt tactics based on context—from necessary work-related conflicts to inter-personal conflicts with clients, opposing counsel, colleagues, or loved ones.²²⁸ Conflict is inevitable and can be both positive and negative.²²⁹ But chronic, unmanaged conflict creates physical, psychological, and behavioral stress. Research suggests that conflict management training can reduce the negative stressful effects of conflict and possibly produce better, more productive lawyers.²³⁰

8.10 Work-Life Conflict

The stress of chronic work-life conflict can damage well-being and performance.²³¹ A study of a New Zealand law firm found that work-life conflict was the strongest predictor of lawyer burnout.²³² Similarly, a study of Australian lawyers found that preoccupation with work was the strongest predictor of depression.²³³ Research in the medical profession repeatedly has found that work-life

conflict contributes to burnout.²³⁴ A large scale study across a variety of occupations found that reports of work-life conflict increased the odds of poor physical health by 90 percent.²³⁵ On the other hand, work-life balance (WLB) benefits workers and organizations.²³⁶

WLB is a complex topic, but research provides guidance on how to develop a WLB-supportive climate. Adopting a formal policy that endorses flexibility is a threshold requirement. Such policies foster the perception of organizational support for flexibility, which is even more important to workers' experience of WLB than actual benefit use. Policies should not be restricted to work-family concerns and any training should emphasize support for the full range of work-life juggling issues. Narrow family-focused policies can create feelings of resentment by workers who have valued non-family commitment.

WLB initiatives cannot end with formal policies or people will doubt their authenticity and fear using them. For example, nearly all large firms report having a flexible schedule policy.²³⁷ But a recent survey of law firm lawyers found that use of flexibility benefits was highly stigmatizing.²³⁸ To benefit from WLB initiatives, organizations must develop a WLB-supportive climate. Research has identified multiple factors for doing so: (1) job autonomy, (2) lack of negative consequences for using WLB benefits, (3) level of perceived expectation that work should be prioritized over family, and (5) supervisor support for WLB. By far, the most important factor is the last. Supervisors communicate their support for WLB by, for example, creatively accommodating non-work-related needs, being empathetic with juggling efforts, and role modeling WLB behaviors.²³⁹

²²⁶G. C. Williams, R. M. Frankel, T. L. Campbell, & E. L. Deci, *Research on Relationship-Centered Care and Healthcare Outcomes from the Rochester Biopsychosocial Program: A Self-Determination Theory Integration*, 18 FAMILIES, SYS. & HEALTH 79 (2000).

²²⁷*Id.*; see also C. White, *The Impact of Motivation on Customer Satisfaction Formation: A Self-Determination Perspective*, 49 EUROPEAN J. MARKETING 1923 (2015).

²²⁸M. T. Colatrella, *A Lawyer for All Seasons: The Lawyer as Conflict Manager*, 49 SAN DIEGO L. REV. 93 (2012).

²²⁹A. Elwork & G. A. H. Benjamin, *Lawyers in Distress*, 23 J. PSYCHIATRY & L. 205 (1995).

²³⁰D. L. Haraway & W. M. Haraway, *Analysis of the Effect of Conflict-Management and Resolution Training on Employee Stress at a Healthcare Organization*, 83 HOSPITAL TOP-ICS 11 (2005); see also Colatrella, *supra* note 228.

²³¹BRAFFORD, *supra* note 131; D. A. MAJOR & R. BURKE, *HANDBOOK OF WORK-LIFE INTEGRATION AMONG PROFESSIONALS: CHALLENGES AND OPPORTUNITIES* (2013).

²³²Hopkins & Gardner, *supra* note 183.

²³³A. D. Joudrey & J. E. Wallace, *Leisure As A Coping Resource: A Test of the Job Demand-Control-Support Model*, 62 HUMAN RELATIONS 195 (2009).

²³⁴E.g., E. Amofo, N. Hanabali, A. Patel, & P. Singh, *What Are the Significant Factors Associated with Burnout in Doctors?*, 65 OCCUPATIONAL MED. 117 (2015).

²³⁵J. Goh, J. Pfefer, & S. A. Zenios, *Workplace Stressors & Health Outcomes: Health Policy for the Workplace*, 1 BEHAV. SCI. & POL'Y. 43 (2015).

²³⁶Major & Burke, *supra* note 231; S. L. Munn, *Unveiling the Work-Life System: The Influence of Work-Life Balance on Meaningful Work*.

²³⁷Press Release, *National Association for Law Placement, NALP Press Release on Part-Time Schedules* (Feb. 21, 2013), http://www.nalp.org/part-time_feb2013.

²³⁸K. M. Managan, E. Giglia, & L. Rowen, *Why Lawyers Leave Law Firms and What Firms Can Do About It*, L. PRAC. TODAY, April 14, 2016, <http://www.lawpracticetoday.org/article/why-lawyers-leave-law-firms-and-what-firms-can-do-about-it>.

²³⁹L. B. Hammer, E. E. Kossek, N. L. Yragui, T. E. Bodner, & G. C. Hanson, *Development and Validation of Multidimensional Measure of Family Supportive Supervisor Behaviors (FSSB)*, 35 J. MGMT. 837 (2009); L. B. Hammer, S. E. Van Dyck, & A. M. Ellis, *Organizational Policies Supportive of Work-Life Integration*, in Major & Burke, *supra* note 231; E. E. Kossek, S. Pichler, T. Bodner, & L. B. Hammer, *Workplace Social Support and Work-Family Conflict: A Meta-Analysis Clarifying the Influence of General and Work-Family-Specific Supervisor and Organizational Support*, 64 PERSONNEL PSYCHOL. 289 (2011).

To support WLB, bar associations and regulators should work with legal employers to develop best practices and relevant training. Regulators and judges should consider whether any of their practices and policies can be modified to better support lawyer WLB.

8.11 Meaning and Purpose

Research has found that feeling that our lives are meaningful is important for physical and psychological wellness. It provides a buffer against stress.²⁴⁰ For example, meaning in life is associated with a reduced risk of anxiety, depression, substance use, suicidal ideation, heart attack, and stroke; slower cognitive decline in Alzheimer's patients; and lower overall mortality for older adults.²⁴¹

For many lawyers, an important part of building a meaningful life is through meaningful work. Experiencing our work as meaningful means that we believe that our work matters and is valuable. A large body of research shows that meaningfulness plays an important role in workplace well-being and performance.²⁴² Evidence suggests that the perception of meaningfulness is the strongest predictor of work engagement.²⁴³

Meaningfulness develops when people feel that their work corresponds to their values. Organizations can enhance the experience of fit and meaningfulness by, for example, fostering a sense of belonging; designing and framing

work to highlight its meaningful aspects; and articulating compelling goals, values, and beliefs.²⁴⁴

These same principles apply in law school. Studies in the college context have found that the majority of students want their educational experiences to be meaningful and to contribute to a life purpose.²⁴⁵ One study measured “psychological sense of community,” which was proposed as a foundation for students to find greater meaning in their educational experience. It was the strongest predictor of academic thriving in the study.²⁴⁶ Deterioration of law students’ sense of meaning may contribute to their elevated rate of psychological distress. Research reflects that, over the course of law school, many students disconnect from their values and become emotionally numb.²⁴⁷

8.12. Substance Use and Mental Health Disorders

Recommended content for training on substance use and mental disorders is outlined above in Recommendation 8 in the body of this report.

8.13. Additional Topics

Many topics are possible for programming aimed at boosting work engagement and overall well-being (through resource-development) and curbing stress and burnout (by limiting demands) or otherwise promoting lawyer well-being. Additional topics to consider include: psychological

²⁴⁰BRAFFORD, *supra* note 131; P. Halama, *Meaning in Life and Coping: Sense of Meaning as a Buffer Against Stress*, in MEANING IN POSITIVE AND EXISTENTIAL PSYCHOLOGY 239-50 (A. Batthyany and P. Russo-Netzer eds., 2014).

²⁴¹E. S. Kim, J. K. Sun, N. Park, C. Peterson, *Purpose in Life and Reduced Incidence of Stroke in Older Adults: The Health and Retirement Study*, 74 J. PSYCHOSOMATIC RES. 427 (2013); M. F. Steger, A. R. Fitch-Martin, J. Donnelly, & K. M. Rickard, *Meaning in Life and Health: Proactive Health Orientation Links Meaning in Life to Health Variables Among American Undergraduates*, 16 J. HAPPINESS STUDIES 583 (2015); M. F. Steger, P. Frazier, S. Oishi, M. Kaler, *The Meaning in Life Questionnaire: Assessing the Presence of and Search for Meaning in Life*, 53 J. COUNSELING PSYCHOL. 80 (2006).

²⁴²E.g., S. Albrecht, *Meaningful Work: Some Key Questions for Research and Practice*, in FLOURISHING IN LIFE, WORK AND CAREERS: INDIVIDUAL WELLBEING AND CAREER EXPERIENCES (R. J. Burke, K. M. Page, & C. Cooper eds., 2015); B. D. Rosso, K. H. Dekas, & A. Wrzesniewski, *On the Meaning of Work: A Theoretical Integration and Review*, 30 RES. IN ORGANIZATIONAL BEHAV. 91 (2010).

²⁴³D. R. May, R. L. Gilson, & L. M. Harter, *The Psychological Conditions of Meaningfulness, Safety and Availability and the Engagement of the Human Spirit at Work*, 77 J. OCCUPATIONAL & ORGANIZATIONAL PSYCHOL. 11 (2004); P. Fairlie, *Meaningful Work, Employee Engagement, and Other Key Employee Outcomes: Implications for Human Resource Development*, 13 ADVANCED IN DEVELOPING HUMAN RESOURCES 508 (2011).

²⁴⁴BRAFFORD, *supra* note 131; M. G. Pratt & B. E. Ashforth, *Fostering Meaningfulness*, in Cameron, Dutton, & Quinn, *supra* note 32; D. J. Cleavenger & T. P. Munyon, *It's How You Frame It: Transformational Leadership and the Meaning of Work*, 56 BUS. HORIZONS 351 (2013); W. Kahn & S. Fellows, *Employee Engagement and Meaningful Work*, in PURPOSE AND MEANING IN THE WORKPLACE 105-26 (B. J. Dik, Z. S. Byrne, & M. F. Steger eds., 2013).

²⁴⁵S. J. DeWitz, M. L. Woolsey, W. B. Walsh, *College Student Retention: An Exploration of the Relationship Between Self-Efficacy Beliefs, and Purpose in Life among College Students*, 50 J. C. STUDENT DEV. 19 (2009); HIGHER EDUC. RES. INST., *THE SPIRITUAL LIFE OF COLLEGE STUDENTS* (2005), available at http://spirituality.ucla.edu/docs/reports/Spiritual_Life_College_Students_Full_Report.pdf; see also J. K. Coffey, L. Wray-Lake, D. Mashek, & B. Branand, *A Longitudinal Examination of a Multidimensional Well-Being Model in College and Community Samples*, 17 J. HAPPINESS STUDIES 187 (2016).

²⁴⁶Eric James McIntosh, *Thriving in College: The Role of Spirituality and Psychological Sense of Community in Students of Color* (2012) (unpublished Ph.D. dissertation, Azusa Pacific University).

²⁴⁷Sheldon & Krieger, *supra* note 154.

capital (composed of optimism, self-efficacy, hope, and resilience),²⁴⁸ psychological hardiness (composed of commitment, control, and challenge),²⁴⁹ stress mindset,²⁵⁰ growth mindset,²⁵¹ grit,²⁵² effort-reward balance,²⁵³ transformational leadership,²⁵⁴ self-determination theory,²⁵⁵ strengths-based management,²⁵⁶ emotional intelligence and regulation,²⁵⁷ organizational fairness,²⁵⁸ nutrition,²⁵⁹ interpersonal skills,²⁶⁰ and political skills.²⁶¹

²⁴⁸E.g., Avey, Luthans, & Jensen, *supra* note 181.

²⁴⁹S. R. Maddi, S. Kahn, & K. L. Maddi, *The Effectiveness of Hardiness Training*, 50 CONSULTING PSYCHOL. J.: PRAC. & RES. 78 (1998).

²⁵⁰Crum, Salovey, Achor, *supra* note 50; McGonigal, *supra* note 182.

²⁵¹C. S. DWECK, MINDSET: THE NEW PSYCHOLOGY OF SUCCESS (2008).

²⁵²A. DUCKWORTH, GRIT: THE POWER OF PASSION AND Perseverance (2016).

²⁵³A. Allisey, J. Rodwell, & A. Noblet, *Personality and the Effort-Reward Imbalance Model of Stress: Individual Differences in Reward Sensitivity*, 26 WORK & STRESS 230 (2012).

²⁵⁴M. Y. Ghadi, M. Fernando, & P. Caputi, *Transformational Leadership and Work Engagement*, 34 LEADERSHIP & ORG. DEV. J. 532 (2013).

²⁵⁵Krieger & Sheldon, *supra* note 5.

²⁵⁶D. O. Clifton & J. K. Harter, *Investing in Strengths*, in Cameron, Dutton, & Quinn, *supra* note 32.

²⁵⁷C. Miao, R. H., Humphrey, & S. Qian, *Leader Emotional Intelligence and Subordinate Job Satisfaction: A Meta-Analysis of Main, Mediator, and Moderator Effects*, 102 PERSONALITY AND INDIVIDUAL DIFFERENCES 13 (2016); K. Thory, *Teaching Managers to Regulate Their Emotions Better: Insights from Emotional Intelligence Training and Work-Based Application*, 16 HUMAN RESOURCE DEV. INT'L 4 (2013); R. E. Riggio, *Emotional Intelligence and Interpersonal Competencies*, in SELF-MANAGEMENT AND LEADERSHIP DEVELOPMENT 160-82 (M. G. Rothstein, R. J. Burke eds., 2010).

²⁵⁸J. Greenberg, *Positive Organizational Justice: From Fair to Fairer—and Beyond*, in EXPLORING POSITIVE RELATIONSHIPS AT WORK: BUILDING A THEORETICAL AND RESEARCH FOUNDATION 159-78 (J. E. Dutton & B. R. Ragins eds., 2007).

²⁵⁹T. RATH, EAT, MOVE, SLEEP (2013).

²⁶⁰J. Mencl, A. J. Wefald, & K. W. van Ittersum, *Transformational Leader Attributes: Interpersonal Skills, Engagement, and Well-Being*, 37 LEADERSHIP & ORG. DEV. J. 635 (2016).

²⁷⁰*Id.*; C. C. Rosen & D. C. Ganster, *Workplace Politics and Well-Being: An Allostatic Load Perspective*, in IMPROVING EMPLOYEE HEALTH AND WELL-BEING 3-23 (A. M. Rossi, J. A. Meurs, P. L. Perrewa eds., 2014); Ferris, Daniels, & Sexton, *supra* note 40.

APPENDIX D

*Appendix to Recommendation 25:
Topics for Legal Employers' Audit of Well-Being Related Policies and Practices*

Legal employers should consider topics like the following as part of their audits of current policies and practices to evaluate whether the organization adequately supports lawyer well-being.

MENTAL HEALTH & SUBSTANCE USE DISORDERS

- Is there a policy regarding substance use, mental health, and impairment? If so, does it need updating?
- Does the policy explain lawyers' ethical obligations relating to their own or colleagues' impairment?
- Is there a leave policy that would realistically support time off for treatment?
- Are there meaningful communications about the importance of well-being?
- Do health plans offered to employees include coverage for mental health and substance use disorder treatment?

LAW PRACTICE MANAGEMENT PRACTICES AFFECTING LAWYER WELL-BEING

- **Assessment of Well-Being:** Is there a regular practice established to assess work engagement, burnout, job satisfaction, turnover intentions, psychological well-being, or other indicators of well-being and to take action on the results?
- **Orientation Practices:** Are orientation practices established to set new lawyers up for success, engagement, and well-being?
- **Work-Life Balance-Related Policies & Practices:** Is there a policy that allows flexibility and an organizational climate that supports it? Is it a practice to recognize lawyers and staff who demonstrate a high standard of well-being?
- **Diversity/Inclusion-Related Policies & Practices:** Diversity and inclusion practices impact lawyer well-being. Are policies and practices in place with a specific mission that is adequately funded?²⁶⁵
- **24/7 Availability Expectations:** Do practices allow lawyers time for sufficient rejuvenation? Are response-time expectations clearly articulated and reasonable? Is there an effort to protect time for lawyers to recover from work demands by regulating work-related calls and emails during evenings, weekends, and vacations?²⁶⁶

²⁶⁵For example, a 2015 report found that most larger firms have some type of diversity training (80 percent) and all participating firms reported having a women's affinity group. But the report also found that affinity groups were "woefully underfunded" and lacking clear goals and missions. See L. S. RIKLEEN, REPORT OF THE NINTH ANNUAL NAWL NATIONAL SURVEY ON RETENTION AND PROMOTION OF WOMEN IN LAW FIRMS, NAT'L ASSOC. OF WOMEN LAWYERS FOUND. (2015), available at <http://www.nawl.org/2015nawlsurvey>.

²⁶⁶For example, McDonald's and Volkswagen—along with one in four U.S. companies—have agreed to stop sending emails to employees after hours. See Fritz, Ellis, Demsky, Lin, & Guros, *supra* note 206. In the highly-demanding world of law, firms should consider the possibility of establishing new norms for lawyers that limit after-hours emails and calls to actual emergencies—especially to associates who have less work-related autonomy and, thus, are at a higher risk for fatigue and burnout.

- **Billing Policies & Practices:** Do billing practices encourage excessive work and unethical behavior?²⁶⁷
- **Compensation Practices:** Are compensation practices fair? And are they perceived as fair? Do they follow standards of distributive (fair outcome), procedural (fair process), interpersonal (treating people with dignity and respect), and informational (transparency) fairness? Perceived unfairness in important practices can devastate well-being and motivation. For example, a large-scale study found that people were 50 percent more likely to have a diagnosed health condition if they perceived unfairness at work.²⁶⁸ Further, high levels of interpersonal and informational fairness should not be ignored—they can reduce the negative effect of less fair procedures and outcomes.²⁶⁹
- **Performance Appraisal Practices:** Are performance appraisal practices fair and perceived as fair? Are observations about performance regularly noted to use in the review? Do multiple raters contribute? Are they trained on the process and to reduce common biases?²⁷⁰ Is feedback given in a two-way communication? Is specific, timely feedback given regularly, not just annually? Is feedback empathetic and focused on behavior not the person's worth? Is good performance and progress toward goals regularly recognized? Is goal-setting incorporated?²⁷¹ Is performance feedback balanced and injected with positive regard and respect to improve likelihood of acceptance?²⁷² Are lawyers asked to describe when they feel at their best and the circumstances that contribute to that experience?²⁷³ Carefully managing this process is essential given evidence that bungled performance feedback harms well-being and performance.
- **Vacation Policies & Practices:** Is there a clear vacation policy? Does the organizational culture encourage usage and support detachment from work? In their study of 6,000 practicing lawyers, law professor Larry Krieger and psychology professor Kennon Sheldon found that the number of vacation days taken was the strongest predictor of well-being among all activities measured in the study. It was a stronger predictor of well-being even than income level.²⁷⁴ This suggests that legal employers should encourage taking of vacation—or at least not discourage or unreasonably interfere with it.

²⁶⁷ ABA COMM'N ON BILLABLE HOURS, AM. BAR ASS'N, THE CORROSIVE IMPACT OF EMPHASIS ON BILLABLE HOURS (2001-2002), available at http://ilta.personifycloud.com/webfiles/productfiles/914311/FMPG4_ABABillableHours2002.pdf.

²⁶⁸ J. Goh, J. Pfeifer, & S. A. Zenios, *Workplace Stressors & Health Outcomes: Health Policy for the Workplace*, 1 BEHAV. SCI. & POL'Y 43 (2015); see also R. M. Herr, A. Loerbrooks, J. A. Bosch, M. Seegel, M. Schneider, & B. Schmidt, *Associations of Organizational Justice with Tinnitus and the Mediating Role of Depressive Symptoms and Burn-out—Findings from a Cross-Sectional Study*, 23 INT'L J. BEHAV. MED. 190 (2016).

²⁶⁹ J. Greenberg, *Promote Procedural and Interactional Justice to Enhance Individual and Organizational Outcomes*, in Locke, *supra* note 7, 255-71; T. R. Tyler & E. A. Lind, *A Relational Model of Authority in Groups*, in *Advances in Experimental Social Psychology* 115-91 (M. P. Zanna ed., 1st ed., 1992).

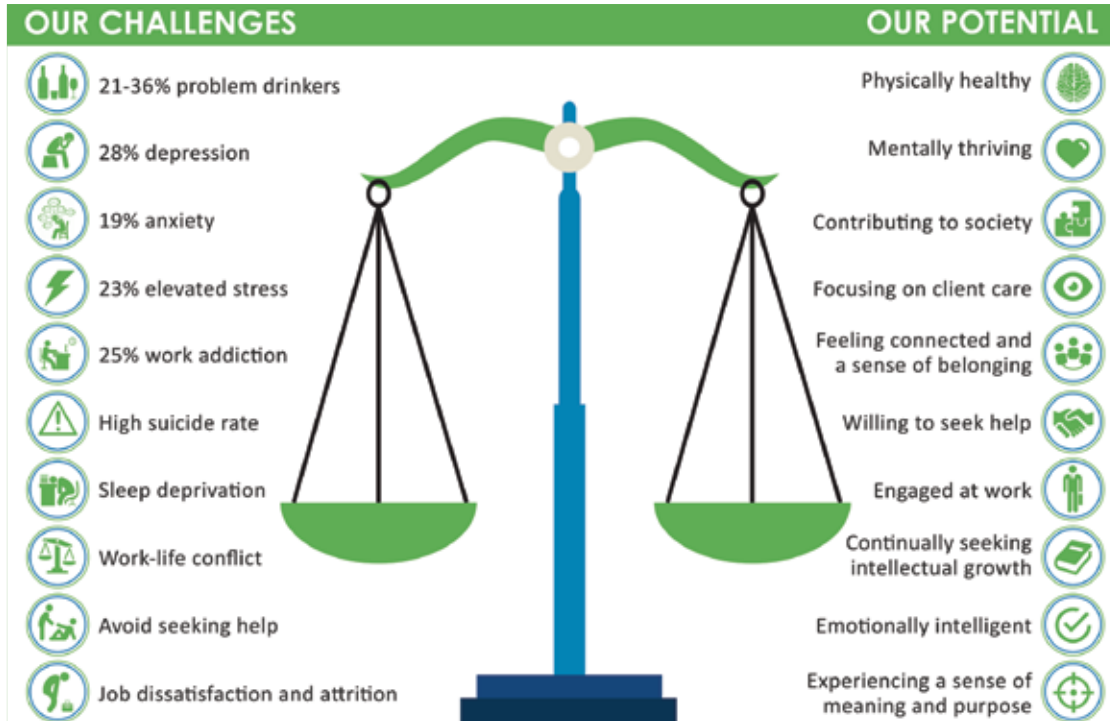
²⁷⁰ F. Luthans & A. Stajkovic, *Provide Recognition for Performance Improvement*, in Locke, *supra* note 7, 239-53.

²⁷¹ A. N. Kluger, & N. DeNisi, *The Effects of Feedback Interventions on Performance: A Historical Review, a Meta-Analysis, and a Preliminary Feedback Intervention Theory*, 119 PSYCHOL. BULL. 254 (1996).

²⁷² O. Bouskila-Yam & A. N. Kluger, *Strengths-Based Performance Appraisal and Goal Setting*, 21 HUMAN RES. MGMT. REV. 137 (2011).

²⁷³ A. N. Kluger & D. Nir, *The Feedforward Interview*, 20 HUMAN RESOURCES MGMT. REV. 235 (2010).

²⁷⁴ Krieger & Sheldon, *supra* note 5.



THE PATH TO LAWYER WELL-BEING:

Practical Recommendations
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KILLING THEM SOFTLY: NEUROSCIENCE REVEALS HOW BRAIN CELLS DIE FROM LAW SCHOOL STRESS AND HOW NEURAL SELF-HACKING CAN OPTIMIZE COGNITIVE PERFORMANCE

*Debra S. Austin, J.D., Ph.D.**

ABSTRACT

Law is a cognitive profession, and the legendary stressors in legal education and the practice of law can take a tremendous toll on cognitive capacity. Lawyers suffer from depression at triple the rate of non-lawyers. This Article provides a groundbreaking synthesis on the neuroscience of achieving optimal cognitive fitness for all law students, law professors, and lawyers.

A number of innovative companies have instituted programs designed to enhance the bottom line. Research shows that perks such as onsite gyms, stress management classes, and mindfulness training produce vibrant workplaces and thriving employees. Forward-looking law schools have created wellness programs designed to relieve law student stress and improve well-being.

* J.D., Ph.D., Lawyering Process Professor, University of Denver Sturm College of Law. Many thanks to LWI-ALWD-LexisNexis for funding this research with a 2012 Legal Writing Scholarship Grant. Thank you for inviting me to speak on this topic: Chief Justice Lawton Nuss of the Kansas Supreme Court; the Legal Writing Institute; the Implications of Tiger Parenting on Legal Education Conference; the Rocky Mountain Legal Writing Conference; the Central States Legal Writing Conference; the Psychology and Lawyering Conference; Kansas Judicial Conference; and The Association of Reporters of Judicial Decisions. Thank you for your scholarship mentoring: Dr. Tom Russell; Professors Robin Wellford Slocum, Kathryn Stanchi, Nantiya Ruan, Corie Rosen Felder, Jan Jacobowitz, KK DuVivier, and Deborah Borman; and the Rocky Mountain Legal Writing Scholarship Group. Thank you for reading drafts: Gary Alexander and Dale Pugh, and for your cheerful and unflinching support: Research Assistants Kelsey Feldkamp and Keri Friedman.

This Article explains the neurobiological reasons these programs enhance employee performance and improve student achievement.

Law school admissions are down, students are questioning the value of legal education, and the Carnegie Report is pressuring law schools to make legal education more practical. Learning about the neuroscience of cognitive wellness is critical to protecting brain function and enhancing cognitive performance. Legal educators have the power to bring this information to the attention of their law students and to create a neuroscience-powered achievement culture in law schools. Law students should not wait for institutional change to alleviate the impact a stressful law school learning environment has on their learning. Their professional identity, along with their capacity to build practice skills and a legal knowledge base, are at risk. Law students, law faculty, and lawyers should be educated and proactive about mitigating stress-related damage to the hippocampus, improving memory formation with adequate sleep, and enhancing cognitive function with exercise and contemplative practices.

Neural self-hacking is likely to be the newest fitness movement. Law schools and law firms that want to support robust cognitive performance for their constituents will follow the lead of companies like Google and create achievement cultures designed to optimize cognitive wellness and limit sources of stress. In doing so, they will curate desirable learning and working environments by enhancing the formation of more complete and competent lawyers. With fresh insights into the complex world of brain function, this Article explains brain structure; describes the parts of the brain used in cognition; and details how stress damages and kills brain cells. Neuroscience-based recommendations uncover the power of self-directed neuroplasticity in every law student, law professor, and lawyer to optimize cognition.

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I. INTRODUCTION

*“If we treat people as they are, we make them worse.
If we treat people as they ought to be,
we help them become what they are capable of becoming.”¹*
J. W. Goethe

Neuroscience shows that the aggregate educative effects of training to become a lawyer under chronically stressful conditions may undermine the efforts of legal educators by weakening the learning capacities of law students. Stress in legal education may

1. DANIEL THEYAGU, GRAVITATING TOWARD SUCCESS 37 (2012) (quoting J. W. Goethe); *Inspirational Quotes: Johann Wolfgang von Goethe*, ENTHEOS, http://www.entheos.com/quotes/by_teacher/johann+wolfgang+von+goethe (last visited Jan. 29, 2014) (“I have come to the frightening conclusion that I am the decisive element. It is my personal approach that creates the climate. It is my daily mood that makes the weather. I possess tremendous power to make life miserable or joyous. I can be a tool of torture or an instrument of inspiration, I can humiliate or humor, hurt or heal. In all situations, it is my response that decides whether a crisis is escalated or de-escalated, and a person is humanized or dehumanized. If we treat people as they are, we make them worse. If we treat people as they ought to be, we help them become what they are capable of becoming.”).

also set the stage for abnormally high rates of anxiety and depression among lawyers.

The stresses of attending law school are legendary. After peppering seventy-five first year law students with questions about their experiences in their 1L year at the University of Memphis law school, Andrew J. McClurg asked students about their dominant feeling at the end of the year.² The answers were disproportionately focused on anxiety and stress.³ Students reported grave concerns over upcoming finals, grades, and failing law school.⁴ They described suffering from “sheer, unrelenting exhaustion” and a “level of mental exhaustion I did not know existed.”⁵ One student admitted to not sleeping in bed more than three nights since beginning law school due to consistently dropping off to sleep either at the computer or in the living room while studying.⁶

Douglas Litowitz argues that “most lawyers hate[d] law school,” describing it as a “hazing ritual” that yields law graduates with more mental problems than they had when they started school.⁷ He complains that law school is not a transformative educational experience, but one that traumatizes and breaks people: “When I say that law school *breaks* people I mean that almost nobody comes out of law school feeling better about themselves, although many come out much worse—caustic, paranoid, and overly competitive.”⁸ Some lawyers feel law school boosted their confidence and self-esteem.⁹ They also enjoyed developing a network of friends and peers.¹⁰ However, many also “cite competition, grades, and workload as major stressors.”¹¹

Law schools often define student success in terms of grades,

2. ANDREW J. MCCLURG, 1L OF A RIDE: A WELL-TRAVELED PROFESSOR'S ROADMAP TO SUCCESS IN THE FIRST YEAR OF LAW SCHOOL 368-89 (2009).

3. *Id.* at 385.

4. *Id.*

5. *Id.* at 386.

6. *Id.*

7. DOUGLAS LITOWITZ, THE DESTRUCTION OF YOUNG LAWYERS: BEYOND ONE L 10, 19 (2006).

8. *Id.* at 30.

9. REBECCA NERISON, LAWYERS, ANGER, AND ANXIETY: DEALING WITH THE STRESSES OF THE LEGAL PROFESSION 68 (2010).

10. *Id.*

11. *Id.*

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class standing, and journal participation.¹² Students are introduced to “these prizes” as early as the first day of orientation, and they feel significant pressure to perform.¹³ They respond by trying to “obtain high grades as a form of credentialing,” marginalizing the development of domain knowledge and skill mastery in the process.¹⁴

The Carnegie Report (Carnegie) parses legal education into three apprenticeships: the intellectual apprenticeship, where students build a knowledge base; the practice apprenticeship, where students develop practical legal skills; and the professional identity apprenticeship, where students learn the attitudes and values of the legal profession.¹⁵ Carnegie argues that deeply rooted aspects of the hidden legal curriculum may cripple legal education.¹⁶ The context in which law students are trained encourages a “single-minded focus on competitive achievement.”¹⁷ A student’s professional identity is shaped by the socialization process of legal education.¹⁸ Carnegie states:

In their passage through law school, students apprentice to a variety of teachers, but they also apprentice to the aggregate educative effects of attending a particular professional school and program. That is, they are formed, in part, by the formal curriculum but also by the informal or ‘hidden’ curriculum of unexamined practices and interaction among faculty and students and of student life itself.¹⁹

Major obstacles to legal education reform enumerated in Carnegie are also significant sources of chronic stress for law students:

- the competitive classroom climate,
- the competitive atmosphere of most law schools, and

12. NANCY LEVIT & DOUGLAS O. LINDER, *THE HAPPY LAWYER: MAKING A GOOD LIFE IN THE LAW* 125 (2010).

13. LEVIT & LINDER, *supra* note 12.

14. *Id.*

15. WILLIAM M. SULLIVAN ET AL., *EDUCATING LAWYERS: PREPARATION FOR THE PROFESSION OF LAW* 28 (2007) (providing the most recent critique of legal education suggesting reforms based on a three apprenticeship model).

16. *Id.* at 31-32.

17. *Id.* at 31.

18. *Id.*

19. *Id.* at 29.

- the grade curve.²⁰

The term “hidden curriculum” was coined in 1968 by Philip W. Jackson, Education Professor at the University of Chicago.²¹ The *Online Dictionary of the Social Sciences* defines hidden curriculum as “[t]he norms, values, and social expectations indirectly conveyed to students.”²² Elliot Eisner, Professor Emeritus of Education and Art of Stanford University, wrote extensively about the explicit official curriculum and the implicit or hidden curriculum.²³ He argued that schools teach much more than they intend to teach via the hidden curriculum.²⁴ The hidden curriculum is part of the culture of both classroom and school, and it socializes learners to the values of the education environment.²⁵

In his book about how educational apprenticeships form professionals, David Williamson Shaffer proposes that a curriculum of professional education should be designed to transmit the skills, knowledge, identities, and values of the profession.²⁶ Learning how to think like a professional means “learning to value the things professionals think of as important, interesting, and meaningful,”²⁷ and seeing oneself as that kind of professional.²⁸ Knowledge, skills, and values transmitted in legal education shape the professional identity development of law students. Law students osmose the culture in legal education and transfer it to law practice.

The stresses facing law students and lawyers result in a significant decline in their well-being, including anxiety, panic

20. SULLIVAN ET AL., *supra* note 15, at 31.

21. PHILIP W. JACKSON, LIFE IN CLASSROOMS 33-34 (1968) (“[T]he crowds, the praise, and the power that combine to give a distinctive flavor to classroom life collectively form a hidden curriculum which each student (and teacher) must master if he is to make his way satisfactorily through the school.”).

22. Robert Drislane & Gary Parkinson, *Alphabetical List of Terms: H*, ONLINE DICTIONARY OF THE SOC. SCIS., <http://bitbucket.icaap.org/dict.pl?alpha=H> (last visited Jan. 29, 2014).

23. ELLIOT W. EISNER, THE EDUCATIONAL IMAGINATION: ON THE DESIGN AND EVALUATION OF SCHOOL PROGRAMS 87-97 (3d ed. 1994).

24. *Id.* at 87.

25. *See id.* at 88.

26. DAVID WILLIAMSON SHAFFER, HOW COMPUTER GAMES HELP CHILDREN LEARN 12 (2006).

27. *Id.* at 105.

28. *Id.* at 135.

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attacks, depression, substance abuse, and suicide.²⁹ Neuroscience now shows that this level of stress also diminishes cognitive capacity.³⁰ The intricate workings of the brain, the ways in which memories become part of a lawyer's body of knowledge, and the impact of emotion on this process indicate that stress can weaken or kill brain cells needed for cognition.³¹

Cognition, Latin for "the faculty of knowing," describes the process by which humans perceive stimuli, extract key information to hold in memory, and generate thoughts and actions to achieve goals.³² The disciplines of neuroscience, psychology, and education study human cognition to improve the understanding of how the brain enables the mind.³³ The learning-focused intersection of these fields is known either as Educational Neuroscience³⁴ or Mind, Brain, and Education (MBE).³⁵ Scientists and educators collaborate in organizations such as Brain, Neurosciences and Education³⁶ and the

29. See LEVIT & LINDER, *supra* note 12, at 6-8; LITOWITZ, *supra* note 7, at 16-26; MCCLURG, *supra* note 2, at 315-318; NERISON, *supra* note 9, at 15-39; Lawrence S. Krieger, *Institutional Denial About the Dark Side of Law School, and Fresh Empirical Guidance for Constructively Breaking the Silence*, 52 J. LEGAL EDUC. 112, 113-15 (2002); Corie Rosen, *The Method and the Message*, 12 NEV. L.J. 160, 161 (2011).

30. See SANDRA AAMODT & SAM WANG, WELCOME TO YOUR BRAIN 86 (2008); DANIEL G. AMEN, CHANGE YOUR BRAIN CHANGE YOUR BODY 248 (2010); RITA CARTER, MAPPING THE MIND 96 (rev. ed. 2010) [hereinafter CARTER, MAPPING THE MIND]; NORMAN DOIDGE, THE BRAIN THAT CHANGES ITSELF 240 (2007); JOHN MEDINA, BRAIN RULES: 12 PRINCIPLES FOR SURVIVING AND THRIVING AT WORK, HOME, AND SCHOOL 179 (2008); FUNDAMENTAL NEUROSCIENCE 804 (Larry R. Squire et al. eds., 4th ed. 2012).

31. See citations *supra* note 30.

32. DALE PURVES ET AL., PRINCIPLES OF COGNITIVE NEUROSCIENCE 2 (2d ed. 2013).

33. Daniel Ansari, Donna Coch & Bert De Smedt, *Connecting Education and Cognitive Neuroscience: Where will the Journey Take us?*, in EDUCATIONAL NEUROSCIENCE: INITIATIVES AND EMERGING ISSUES 36 (2011), available at http://zung.zetamu.net/Library/Education/Education_Neuroscience/Patten_EducationalNeuroscience_2011.pdf.

34. Stephen R. Campbell, *Educational Neuroscience: Motivations, methodology, and implications*, in EDUCATIONAL NEUROSCIENCE: INITIATIVES AND EMERGING ISSUES, *supra* note 33, at 8.

35. TRACEY TOKUHAMA-ESPINOSA, MIND, BRAIN, AND EDUCATION SCIENCE: A COMPREHENSIVE GUIDE TO THE NEW BRAIN-BASED TEACHING 14 (2010); SOUSA, ET AL., MIND, BRAIN, AND EDUCATION: NEUROSCIENCE IMPLICATIONS FOR THE CLASSROOM 9 (2010).

36. The American Education Research Association SIG was launched in 1988. *About the BNE-SIG*, BRAIN, NEUROSCIENCES, & EDUC., <http://www.aera-brain-education.org/About.aspx> (last visited on Jan. 29, 2014).

International Mind, Brain and Education Society (IMBES) to improve teaching and learning.³⁷ A number of innovative companies such as Google, Whole Foods Market, and Cisco Systems have created programs designed to enhance the bottom line.³⁸ Research shows that perks such as onsite gyms, work/life balance programs, stress management classes, mindfulness training, and nutrition coaching promote cognitive health and produce vibrant workplaces and thriving employees.³⁹ Neural self-hacking, a class taught at Google, teaches employees about the power of neuroplasticity.⁴⁰

The brain has the power to change itself through the personal effort and choices of its owner.⁴¹ Brain plasticity is competitive; we keep the skills we practice and we lose the ones we do not.⁴² Legal educators engage in scholarship on lawyer and law student well-being and are active in the Balance in Legal Education section of The Association of American Law Schools.⁴³ The godfather of this movement is Lawrence S. Krieger of Florida State University College of Law.⁴⁴ Law schools have instituted programs to improve student wellness and teach stress management to law students.⁴⁵

37. Marc Schwartz & Jeanne Gerlach, *The Birth of a Field and the Rebirth of the Laboratory School*, in EDUCATIONAL NEUROSCIENCE: INITIATIVES AND EMERGING ISSUES, *supra* note 33, at 66. The IMBES was initiated in 2004 and its journal, Mind, Brain and Education, was started in 2007. Zachary Stein & Kurt W. Fischer, *Directions for Mind, Brain, and Education: Methods, Models, and Morality*, in EDUCATIONAL NEUROSCIENCE: INITIATIVES AND EMERGING ISSUES, *supra* note 33, at 55; see INTERNATIONAL MIND, BRAIN & EDUCATION SOCIETY (IMBES), <http://www.imbes.org/> (last visited Jan. 29, 2014).

38. EDWARD M. HALLOWELL, SHINE: USING BRAIN SCIENCE TO GET THE BEST FROM YOUR PEOPLE 31 (2011); Noah Shachtman, *Enlightenment Engineer*, WIRED (June 18, 2013, 6:30 AM), <http://www.wired.com/business/2013/06/meditation-mindfulness-silicon-valley/all/>.

39. HALLOWELL, *supra* note 38, at 31; Shachtman, *supra* note 38.

40. Shachtman, *supra* note 38.

41. DOIDGE, *supra* note 30, at 47.

42. *Id.* at 59-60; HALLOWELL, *supra* note 38, at 28.

43. See AALS Section on Balance in Legal Education, FLA. ST. U., http://www.law.fsu.edu/academic_programs/humanizing_lawschool/ (last visited Jan. 29, 2014); Section on Balance in Legal Education, ASS'N AM. L. SCH., https://memberaccess.aals.org/eWeb/dynamicpage.aspx?webcode=ChpDetail&chp_cst_key=9fb324e8-e515-4fd3-b6db-a1723feeb799 (last visited Jan. 29, 2014).

44. Lawrence S. Krieger is Clinical Professor and Director of Clinical Externships at Florida State University College of Law. *Faculty*, FLA. ST. U., <http://www.law.fsu.edu/faculty/lkrieger.html> (last visited Jan. 29, 2014).

45. Susan Swaim Daicoff, *Expanding the Lawyer's Toolkit of Skills and Competencies: Synthesizing Leadership, Professionalism, Emotional Intelligence*,

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Each law student, law professor, and lawyer has the power to alter brain processes to achieve states more conducive to learning.⁴⁶ Rule 1.1 of the American Bar Association Model Rules of Professional Conduct requires lawyers to be competent in completing their duties on behalf of their clients.⁴⁷ Law students, law professors, and lawyers can benefit from developing a neuroscience-based understanding of how to optimize their own cognition.⁴⁸ Developments in neuroscience identify areas of cognition in the brain and indicate recommendations that enhance cognitive effectiveness, performance, and productivity. Steps taken to increase cognitive fitness can strengthen lawyer creativity and well-being. In addition to bolstering cognitive competence, cognitive wellness initiatives may also provide a lawyer with a competitive advantage. Knowledge of these neuroscience findings will empower law students, law professors, and lawyers to enhance their cognitive wellness. Law faculty can implement neuropedagogy, teaching practices grounded in the latest MBE findings, by reflecting on stress in legal education and the impacts of the hidden curriculum.⁴⁹ Law schools and law firms, like many cutting-edge companies, can curate a culture of cognitive wellness.

This groundbreaking synthesis on the neuroscience of how to achieve optimal cognitive fitness is a must-read for all law students, law professors, and lawyers. Section II of this Article identifies the areas of the brain involved in cognition and explains the unique structure of neural communication networks. Section III discusses the neuroscience of memory formation and how learning occurs. Section IV describes the relationship between the brain and body during the stress response, examines the impact of negative emotions on learning, and details how brain research results from rodent studies are being confirmed in

Conflict Resolution, and Comprehensive Law, 52 SANTA CLARA L. REV. 795, 813 (2012). See generally Gretchen Duhaime, *Practicing on Purpose: Promoting Personal Wellness and Professional Values in Legal Education*, 28 TOURO L. REV. 1207 (2012).

46. See Campbell, *supra* note 34, at 8.

47. MODEL RULES OF PROF'L CONDUCT R. 1.1 (2012), available at http://www.americanbar.org/groups/professional_responsibility/publications/model_rules_of_professional_conduct/rule_1_1_competence.html.

48. See MARGARET GLICK, *THE INSTRUCTIONAL LEADER AND THE BRAIN: USING NEUROSCIENCE TO INFORM PRACTICE* 13 (2011).

49. See Kathryn E. Patten, *The Somatic Appraisal Model of Affect: Paradigm for Educational Neuroscience and Neuropedagogy*, in EDUCATIONAL NEUROSCIENCE: INITIATIVES AND EMERGING ISSUES, *supra* note 33, at 86.

studies on live humans with brain-scanning technology. Section V presents a plan for neural self-hacking. It connects the neuroscience to recommendations to optimize law student and lawyer cognitive function and to create a culture of cognitive wellness in law schools and firms. Section V concludes with a challenge to individual law students and lawyers to embrace the promise of neuroplasticity and develop a plan for cognitive wellness. Section VI challenges legal educators to adopt the neuroscience-based innovations of achievement cultures that could transform the law school experience. Finally, the Appendix summarizes the neuroscience vocabulary used in this Article.

II. THE BRAIN

*"What flows through your mind sculpts your brain."*⁵⁰
Rick Hanson

A. STRUCTURE OF THE BRAIN

A law student's brain weighs three pounds,⁵¹ is the size of a coconut, is shaped like a walnut, and has the consistency of chilled butter,⁵² Jell-O,⁵³ or for the vegetarians, tofu.⁵⁴ Despite assumptions to the contrary, a law professor's brain is the same size. The eight bones that make up the cranium protect the brain.⁵⁵ It requires about 25% of the calories consumed, 20% of the oxygen breathed, and 25% of the body's total blood flow.⁵⁶ The brain evolved from the top of the spine up into three general functional areas:⁵⁷ the primitive brain, the emotional brain,⁵⁸ and the thinking brain.⁵⁹

50. RICK HANSON, *BUDDHA'S BRAIN: THE PRACTICAL NEUROSCIENCE OF HAPPINESS, LOVE, & WISDOM* 6 (2009).

51. GERALD M. EDELMAN, *WIDER THAN THE SKY: THE PHENOMENAL GIFT OF CONSCIOUSNESS* 15 (2004).

52. CARTER, *MAPPING THE MIND*, *supra* note 30, at 14.

53. DAVID M. EAGLEMAN, *INCognito: THE SECRET LIVES OF THE BRAIN* 2 (2011).

54. AMEN, *supra* note 30, at 18.

55. ERIC H. CHUDLER, *THE LITTLE BOOK OF NEUROSCIENCE HAIKUS* 113 (2013).

56. AMEN, *supra* note 30, at 17.

57. BARRY J. GIBB, *THE ROUGH GUIDE TO THE BRAIN* 6-8 (Duncan Clark & Ruth Tidball eds., 2007); DAVID PERLMUTTER & ALBERTO VILLOLDO, *POWER UP YOUR BRAIN: THE NEUROSCIENCE OF ENLIGHTENMENT* 16-21 (2011).

58. JUDITH HORSTMAN, *THE SCIENTIFIC AMERICAN: DAY IN THE LIFE OF YOUR BRAIN* 4-6 (2009) [hereinafter HORSTMAN, *DAY IN THE LIFE*].

59. JUDITH HORSTMAN, *THE SCIENTIFIC AMERICAN: BRAVE NEW BRAIN* 4 (2010) [hereinafter HORSTMAN, *BRAVE NEW BRAIN*].

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The primitive brain sits on top of the spine and is also known as the brain stem, hindbrain,⁶⁰ or reptilian brain.⁶¹ The primitive brain governs some of the body's basic motor functions,⁶² such as breathing, digestion, heartbeat, sleeping,⁶³ and balance.⁶⁴ Major parts of this region include the brain stem, midbrain, and cerebellum.⁶⁵ If you are struggling for survival, you are using your primitive brain.⁶⁶

The emotional brain lies deep within the skull, is situated around the primitive brain, and is also called the limbic system⁶⁷ or inner brain.⁶⁸ The emotional brain is the sentry between spinal cord and primitive brain below and the thinking brain above it.⁶⁹ The emotional brain manages circadian rhythm, hunger, sex hormones, addiction, and emotions.⁷⁰ Most of its parts “come in pairs, one in each hemisphere.”⁷¹ The major components of the limbic system are the amygdala, hippocampus, hypothalamus, thalamus, nucleus accumbens, and ventral tegmental, surrounded by the limbic lobe.⁷² When law students experience an emotional response or create new memories, their emotional brains are engaged.⁷³

The thinking brain is the wrinkly top layer known as the cerebral cortex.⁷⁴ The cortex is “wafer-thin” and approximately

60. *Id.* at 3.

61. *See* PERLMUTTER & VILLOLDO, *supra* note 57, at 17, 27.

62. GIBB, *supra* note 57, at 37.

63. HORSTMAN, BRAVE NEW BRAIN, *supra* note 59, at 3.

64. GIBB, *supra* note 57, at 37 (stating that the cerebellum or “little brain” is located behind the brain stem and has the “primary functions of movement and balance”).

65. *Id.* at 36-37.

66. PERLMUTTER & VILLOLDO, *supra* note 57, at 27.

67. CARTER, MAPPING THE MIND, *supra* note 30, at 15.

68. HORSTMAN, DAY IN THE LIFE, *supra* note 58, at 4.

69. HORSTMAN, BRAVE NEW BRAIN, *supra* note 59, at 4.

70. GIBB, *supra* note 57, at 38; HORSTMAN, BRAVE NEW BRAIN, *supra* note 59, at 4; HORSTMAN, DAY IN THE LIFE, *supra* note 58, at 4.

71. HORSTMAN, DAY IN THE LIFE, *supra* note 58, at 4.

72. RITA CARTER, THE HUMAN BRAIN BOOK: AN ILLUSTRATED GUIDE TO ITS STRUCTURE, FUNCTION, AND DISORDERS 64, 128 (Tony Phipps et al. eds., 2009) [hereinafter CARTER, THE HUMAN BRAIN]; HORSTMAN, DAY IN THE LIFE, *supra* note 58, at 4-5.

73. GIBB, *supra* note 57, at 39.

74. *Id.*; MICHAEL S. SWEENEY, BRAIN, THE COMPLETE MIND: HOW IT DEVELOPS, HOW IT WORKS, AND HOW TO KEEP IT SHARP 20 (Amy Briggs ed., 2009).

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324 square inches,⁷⁵ about the size of a full-page newspaper⁷⁶ or baby blanket if flattened.⁷⁷ The thinking brain has two hemispheres linked together by a bundle of nerves, the corpus callosum, which allows information to pass between them.⁷⁸ The left hemisphere is analytical, logical, detail oriented, and associated with reasoning, language and speech functions, and convergent thinking.⁷⁹ The right hemisphere processes information “in a holistic way,” is intuitive, imaginative, and associated with emotion, spatial cognition, and divergent thinking.⁸⁰ The thinking brain is also divided into four major lobes:

- the frontal lobe (reasoning, planning, language);
- the occipital lobe (vision);
- the temporal lobe (hearing and some aspect of memory); and
- the parietal lobe (movement, taste, temperature, touch).⁸¹

The outer layer of the thinking brain is gray matter, consisting of densely packed neurons responsible for information processing, and the inner layer is white matter, where information is transported between parts of the brain.⁸² When law students use reasoning and logic to conduct “higher-order thinking,” such as applying the law to a fact pattern, they are using their thinking brains.⁸³

All parts of the primitive, emotional, and thinking brain are

75. CHUDLER, *supra* note 55, at 25.

76. *Id.*

77. MEDINA, *supra* note 30, at 102.

78. GIBB, *supra* note 57, at 41; SWEENEY, *supra* note 74, at 20.

79. CARTER, MAPPING THE MIND, *supra* note 30, at 36; HORSTMAN, DAY IN THE LIFE, *supra* note 58, at 130; SWEENEY, *supra* note 74, at 20.

80. *See* citations *supra* note 79.

81. CARTER, THE HUMAN BRAIN, *supra* note 72, at 66; CARTER, MAPPING THE MIND, *supra* note 30, at 14; GIBB, *supra* note 57, at 40; HORSTMAN, DAY IN THE LIFE, *supra* note 58, at 6.

82. CARTER, MAPPING THE MIND, *supra* note 30, at 14-15; GIBB, *supra* note 57, at 40, 118-22.

83. *See* PERLMUTTER & VILLOLDO, *supra* note 57, at 19-20 (discussing the thinking brain, otherwise known as “the neocortex, which is . . . responsible for speech, writing, and higher-order thinking in humans” and where “reasoning, and logic take place”).

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made up of communication nerve cells called neurons and support cells called glial cells.⁸⁴ Chains of neurons send messages around the brain and between the brain and the body.⁸⁵ Glial cells insulate neurons and aid their information exchanges.⁸⁶ Approximately 90% of the cells in the brain are glial cells and 10% are neurons.⁸⁷

Neurons, the communication cells that transport information around the law student brain, are shaped like trees with long trunks called axons, a cell body bulb at the top of the trunk, and branches called dendrites.⁸⁸ The cell body stores genetic material and makes proteins.⁸⁹ Axons and dendrites are limbs of nerve fibers, reaching out from the cell body, which conduct communication throughout the brain.⁹⁰ Axons are the output channels that carry messages to other cells.⁹¹ They are insulated by myelin, which aids the transmission of information.⁹² Dendrites are the input channels that receive information from the axons.⁹³ Information travels on a path from the branch dendrites, down the axon trunk, across the synapses, and on to the next group of dendrite branches.⁹⁴ The brain is made up of approximately 100 billion neurons that form networks and make trillions of connections.⁹⁵

The communication site where information-sending axons (trunks) meet information-receiving dendrites (branches) is a tiny gap called the synapse.⁹⁶ Information moves along the neural path as an electrical impulse when travelling through the neuron and a chemical when jumping across the synapse.⁹⁷ A message

84. CARTER, *THE HUMAN BRAIN*, *supra* note 72, at 69.

85. SWEENEY, *supra* note 74, at 11.

86. *Id.* at 10.

87. CARTER, *THE HUMAN BRAIN*, *supra* note 72, at 69.

88. *Id.* at 68; SWEENEY, *supra* note 74, at 10-11.

89. JOSEPH LEDOUX, *SYNAPTIC SELF: HOW OUR BRAINS BECAME WHO WE ARE* 40 (2002).

90. SWEENEY, *supra* note 74, at 11-12.

91. LEDOUX, *supra* note 89, at 40.

92. SWEENEY, *supra* note 74, at 12.

93. LEDOUX, *supra* note 89, at 40-41.

94. HORSTMAN, *BRAVE NEW BRAIN*, *supra* note 59, at 39 (explaining how memories or “bits of specific information” are created through this process).

95. NAT’L GEOGRAPHIC SOC’Y, *YOUR BRAIN: A USER’S GUIDE* 27 (2012).

96. CARTER, *THE HUMAN BRAIN*, *supra* note 72, at 69; LEDOUX, *supra* note 89, at 40-42.

97. NAT’L GEOGRAPHIC SOC’Y, *supra* note 95, at 28.

moving from neuron to neuron is electrical–chemical–electrical.⁹⁸ The chemicals that carry messages over the synaptic gap are called neurotransmitters.⁹⁹ Over 100 neurotransmitters have been identified and some of the important ones are:

- Dopamine (motivation, pleasure, meaning);
- Endorphins (reduce pain, increase pleasure);
- Serotonin (mood, anxiety, sleep);
- Oxytocin (bonding);
- Acetylcholine (attentiveness, memory);
- Glutamate (learning, memory);
- Gamma-aminobutyric acid or GABA (slows and balances system); and
- Norepinephrine (mood, arousal, attention, perception, motivation).¹⁰⁰

Neurotransmitters leave the axon of the first neuron, move across the synapse, and dock in the dendrite of the next neuron.¹⁰¹ Each neurotransmitter can dock only in the appropriate place in the dendrite receptor cell's surface.¹⁰² Neurotransmitters either encourage the receptor cell to fire or inhibit neural activity.¹⁰³ "About 80 percent of the signaling in the brain is carried out by two neurotransmitters:" glutamate excites neurons into action and gamma-aminobutyric acid (GABA) suppresses them.¹⁰⁴ Like a transit system connects neighborhoods in a city, these electrochemical neuron data

98. LEDOUX, *supra* note 89, at 47 ("[E]lectrical signals coming down axons get converted into *chemical* messages that help trigger *electrical* signals in the next cell.").

99. CARTER, MAPPING THE MIND, *supra* note 30, at 16, 28-29; HORSTMAN, DAY IN THE LIFE, *supra* note 58, at 6.

100. CARTER, MAPPING THE MIND, *supra* note 30, at 29 (referring to the same chemical by its other name, noradrenaline); HORSTMAN, DAY IN THE LIFE, *supra* note 58, at 8; JOHN J. RATEY, SPARK: THE REVOLUTIONARY NEW SCIENCE OF EXERCISE AND THE BRAIN 37 (2008); SWEENEY, *supra* note 74, at 15.

101. NAT'L GEOGRAPHIC SOC'Y, *supra* note 95, at 28.

102. *Id.*; SWEENEY, *supra* note 74, at 15.

103. CARTER, MAPPING THE MIND, *supra* note 30, at 28-29; SWEENEY, *supra* note 74, at 15.

104. RATEY, *supra* note 100, at 37.

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pathways link brain regions.¹⁰⁵

B. MAPPING THE BRAIN

Neuroscientists, psychologists, and educators strive to understand the relationship between the brain and human behavior.¹⁰⁶ While there is still much to be learned about the complex nuances of brain function,¹⁰⁷ brain scans have expanded research into how the brain operates.¹⁰⁸

The earliest brain drawing, on Egyptian papyrus, dates from 3,000 to 2,500 B.C.¹⁰⁹ While Christopher Columbus Langdell's model of legal education using the casebook method is about 142 years old, modern brain mapping began approximately 350 years ago.¹¹⁰ After studying the brain for many years, Oxford physiologist Thomas Willis published the first illustrated manual of the brain, *Cerebri Anatome*, in 1664.¹¹¹ Willis meticulously dissected post-mortem human brains and coined the terms neurology, lobe, and hemisphere.¹¹²

Brain research has been greatly enhanced by increasingly sophisticated scanning technologies that allow study of the brains of live subjects.¹¹³ Brain scanning can provide anatomical imaging of the structure of the brain or functional scanning indicating how the brain is working during various tasks.¹¹⁴

105. CARTER, MAPPING THE MIND, *supra* note 30, at 28.

106. Joy Hirsch, *From Brain Structure to Brain Function*, in PORTRAITS OF THE MIND: VISUALIZING THE BRAIN FROM ANTIQUITY TO THE 21ST CENTURY 200 (2010).

107. See HORSTMAN, BRAVE NEW BRAIN, *supra* note 59, at 79-80.

108. CARTER, THE HUMAN BRAIN, *supra* note 72, at 12.

109. CARTER, MAPPING THE MIND, *supra* note 30, at 25.

110. MCCLURG, *supra* note 2, at 89-90; CARTER, THE HUMAN BRAIN, *supra* note 72, at 8; GIBB, *supra* note 57, at 17-19.

111. CARTER, THE HUMAN BRAIN, *supra* note 72, at 8; GIBB, *supra* note 57, at 17-19.

112. GIBB, *supra* note 57, at 18. His illustrator was Christopher Wren, who later designed St. Paul's Cathedral in London. SWEENEY, *supra* note 74, at 8. Early brain research highlights include: the discovery of the two language centers by Broca in 1861 and Wernicke in 1876; the silver nitrate staining process of Camillo Golgi and the discovery of the neuron and the theory that information travels between neurons in a chemical process by Ramón y Cajal, for which they won the Nobel Prize in 1906; Korbinian Brodmann's cortex map of types of brain cells in fifty-two cortical areas in 1909; and the isolation of the first neurotransmitter, one of the chemicals that allows information to be passed between neurons, by Henry Hallett Dale in 1914. CARTER, THE HUMAN BRAIN, *supra* note 72, at 9, 10, 67, 73; SWEENEY, *supra* note 74, at 11.

113. HORSTMAN, BRAVE NEW BRAIN, *supra* note 59, at 72.

114. CARTER, THE HUMAN BRAIN, *supra* note 72, at 12-13; GIBB, *supra* note 57, at

Brain structure scanning tools include: X-Ray; CT or CAT scan; and MRI.¹¹⁵ Brain function and activity scanning tools include: EEG; fMRI; MEG; PET; DTI; and NIRS.¹¹⁶ Neuroscientists use brain imaging to study a range of human activities and they have identified the brain regions involved in perception, language, memory, emotion, and movement.¹¹⁷ Although human brain regions function the same way in each person, the location of human memory is individualized.¹¹⁸

C. EACH BRAIN IS ONE OF A KIND

The brains of all healthy law students are comprised of the triune structure: the primitive, emotional, and thinking brains.¹¹⁹ The critical unit of communication within each brain is the tree-shaped neuron, which relies on the electrochemical process of transmitting information through the brain and between brain and body.¹²⁰ Every law student has a multitude of neuronal networks operating within the brain.¹²¹ But each student's transit system map of neuron data pathways, referred to as the connectome,¹²² is unique.¹²³

"You are your synapses,"¹²⁴ and your brain is a "work in progress" because your connectome is continuously rewiring itself.¹²⁵ The brain is in a constant state of change. It has the capacity to produce new neurons in the hippocampus and the olfactory bulbs (parts of the emotional brain) in a process called

26-27; HORSTMAN, BRAVE NEW BRAIN, *supra* note 59, at 73-74, 78; SWEENEY, *supra* note 74, at 29.

115. CARTER, THE HUMAN BRAIN, *supra* note 72, at 12-13; GIBB, *supra* note 57, at 26-27; HORSTMAN, BRAVE NEW BRAIN, *supra* note 59, at 73-74; SWEENEY, *supra* note 74, at 29.

116. See citations *supra* note 114.

117. CARTER, THE HUMAN BRAIN, *supra* note 72, at 12.

118. DEAN BUONOMANO, BRAIN BUGS: HOW THE BRAIN'S FLAWS SHAPE OUR LIVES 33 (2011).

119. SWEENEY, *supra* note 74, at 69.

120. CARTER, THE HUMAN BRAIN, *supra* note 72, at 41.

121. SWEENEY, *supra* note 74, at 13; Mark I. Sirkin, *Managing Your Brain – A User's Guide*, 82-SEP N.Y. ST. B.J. 38, 39 (2010) (referring to these networks as "maps").

122. PRINCIPLES OF NEURAL SCIENCE 1523-24 (Eric R. Kandel et al. eds., 5th ed. 2013); SEBASTIAN SEUNG, CONNECTOME: HOW THE BRAIN'S WIRING MAKES US WHO WE ARE xiii (2012).

123. See MEDINA, *supra* note 30, at 66; Sirkin, *supra* note 121, at 39.

124. LEDOUX, *supra* note 89, at ix.

125. HORSTMAN, BRAVE NEW BRAIN, *supra* note 59, at 7.

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neurogenesis.¹²⁶ The modification of neural networks in response to experience, such as legal education, is neuroplasticity.¹²⁷ Humans have struggled to find a metaphor for human memory. Plato thought it similar to a wax tablet,¹²⁸ and more recently, memory has been compared to hard drive storage in a computer.¹²⁹ Memories are not stored in a central location in the brain, but are stored in the neural pathways distributed across the cortex in the exclusive transit map connectome of each law student and lawyer.¹³⁰

III. THE NEUROBIOLOGY OF COGNITION

*"Sixty minutes of thinking of any kind is bound to lead to confusion and unhappiness."*¹³¹

James Thurber

A. THE EMOTIONAL AND THINKING BRAIN LOOP

Connecting specific regions of the brain to the human experience continues to engage scientists,¹³² and much of the focus has been on processes such as learning and memory.¹³³ Learning is the acquisition of new information and memory is how the information is stored.¹³⁴ Learning includes cognitive components, such as memorizing rules of civil procedure; motor components, such as the typing necessary to take notes on a laptop; and affective components, such as feeling embarrassed if unprepared when called on in class.¹³⁵ When learning something new, the brain is processing information and establishing fresh neural connections as networks of neurons fire together.¹³⁶

For law professors to help students learn and encode

126. HORSTMAN, BRAVE NEW BRAIN, *supra* note 59, at 8; SWEENEY, *supra* note 74, at 294.

127. HORSTMAN, BRAVE NEW BRAIN, *supra* note 59, at 11; *see* LEDOUX, *supra* note 89, at 9.

128. SEUNG, *supra* note 122, at 77.

129. MEDINA, *supra* note 30, at 112-13.

130. *Id.* at 112; *see* SEUNG, *supra* note 122, at 79-80.

131. *James Thurber Quotes*, BRAINYQUOTE, http://www.brainyquote.com/quotes/authors/j/james_thurber.html (last visited Jan. 29, 2014).

132. *See* CARTER, MAPPING THE MIND, *supra* note 30, at 18.

133. LEDOUX, *supra* note 89, at 9-10.

134. SWEENEY, *supra* note 74, at 236 (referring to a statement made by Eric R. Kandel).

135. *See* NAT'L GEOGRAPHIC SOC'Y, *supra* note 95, at 21.

136. GLICK, *supra* note 48, at 88-89.

memories for storage, the law student thinking brain and emotional brain must work together in a complex communication process. Information comes into the thinking brain via the senses.¹³⁷ Visual information is processed by the occipital lobe; sound is processed by the temporal lobe; language is processed by the frontal lobe; and information about movement, touch, or taste is processed in the parietal lobe.¹³⁸ From the senses in the thinking brain, information moves through the emotional brain when the thalamus focuses the brain's attention, screens and sorts this sensory information, and relays it to the hippocampus.¹³⁹ The hippocampus is both "the starting point and ending point of the loop" that is necessary for storing new memories.¹⁴⁰ Before the information circuit goes back to the thinking brain, the amygdala is checked for emotional content.¹⁴¹ The amygdala becomes part of the memory storage capacity for emotionally-charged experiences, and those memories are encoded more powerfully in the brain than emotionally-neutral information.¹⁴² The information loops back to the thinking brain, to the specific lobe of the original sensory input, and returns to the hippocampus.¹⁴³ Information travels this entire memory-encoding ring via law student neurons and their neurotransmitters.¹⁴⁴

For law students, classroom experiences and reading material start to become part of long-term memory when the information is iterated through the circuit from the hippocampus in the emotional brain to the thinking brain and back to the hippocampus.¹⁴⁵ Neurons fire along the way, increasing in sensitivity and the likelihood that they will fire again along the same path, in a process called long-term potentiation (LTP).¹⁴⁶

137. SWEENEY, *supra* note 74, at 248.

138. CARTER, THE HUMAN BRAIN, *supra* note 72, at 66; GIBB, *supra* note 57, at 40; HORSTMAN, DAY IN THE LIFE, *supra* note 58, at 6.

139. See CARTER, THE HUMAN BRAIN, *supra* note 72, at 60; EDELMAN, *supra* note 51, at 19-21.

140. SWEENEY, *supra* note 74, at 252.

141. See *id.* at 242.

142. CARTER, THE HUMAN BRAIN, *supra* note 72, at 158-59; SWEENEY, *supra* note 74, at 242.

143. See CARTER, THE HUMAN BRAIN, *supra* note 72, at 159.

144. See CARTER, MAPPING THE MIND, *supra* note 30, at 159.

145. See SWEENEY, *supra* note 74, at 246-49.

146. CARTER, MAPPING THE MIND, *supra* note 30, at 159-60; SWEENEY, *supra* note 74, at 248.

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Canadian psychologist Donald Hebb described this connectome-building synaptic process: “Cells that fire together wire together.”¹⁴⁷ Synaptic plasticity supports memory systems, which are distributed assemblies of interconnected neurons.¹⁴⁸ The brains of law students and lawyers are continuously being rewired and everything they do, think, and feel is governed by their neural networks.¹⁴⁹

B. MEMORY TYPES

A memory trace, such as the first five minutes of an introductory lecture on the Rule Against Perpetuities, is the initial sensory information received by the brain during a law student learning experience. The ability to store information depends on working memory, which consists of visual, auditory, motor, and emotion memory traces, mediated by executive control processes.¹⁵⁰ “[A] memory trace is fragile, labile, subject to amendment, and at risk for extinction.”¹⁵¹ The brain can use working memory to begin converting memory traces into long-term memory or it can forget them.¹⁵²

Long-term memory can be classified as implicit or explicit, and these memory types are stored in different regions of the brain.¹⁵³ Implicit memories are also called nondeclarative memories because they “cannot be experienced in our conscious awareness.”¹⁵⁴ Nondeclarative memories include procedural and fear memories, which are unconscious and stored in the primitive or emotional brain.¹⁵⁵ Procedural memories are motor skills or how-to memories, and they are stored in the cerebellum (primitive brain).¹⁵⁶ These are learned habits and skills such as skiing, dancing, and driving.¹⁵⁷ Fear memories are phobias and flashbacks, such as fear of snakes or humiliations at the hands of

147. LEDOUX, *supra* note 89, at 79.

148. FUNDAMENTAL NEUROSCIENCE, *supra* note 30, at 1029.

149. RATEY, *supra* note 100, at 36.

150. PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1442. Executive control is decision-making by monitoring a situation and applying the appropriate rule for behavior within a particular context. PURVES ET AL., *supra* note 32, at 431.

151. MEDINA, *supra* note 30, at 125.

152. *Id.* at 103; SWEENEY, *supra* note 74, at 240-43.

153. PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1445-47.

154. *Id.* at 1446; MEDINA, *supra* note 30, at 101.

155. SWEENEY, *supra* note 74, at 240-43.

156. *Id.* at 242-43.

157. *Id.* at 242.

vicious law professors or legal employers, and they are stored in the amygdala (emotional brain).¹⁵⁸

Explicit memories are called declarative memories because they require conscious thought in order to be recalled, and they are stored in both the emotional and thinking brain.¹⁵⁹ Episodic memories are of autobiographical personal experiences, such as the memory of meeting your best law school friend at the Orientation Week picnic.¹⁶⁰ Semantic memories, those especially important in legal education, are “learned knowledge,” such as facts, concepts, and words.¹⁶¹ Episodic and semantic memories are stored in the hippocampus (emotional brain) and the cerebral cortex (thinking brain).¹⁶²

Scientists learned much about the relationship between working memory and long-term memory because of an historic case involving a man who had surgery to treat epileptic seizures. In 1953, patient H.M. had a substantial amount of his temporal lobes removed on both sides of his brain.¹⁶³ The temporal lobes are part of the emotional brain and include the hippocampus.¹⁶⁴ The surgery improved his seizures, but he was left with severe memory impairment and his capacity for new learning was nearly extinguished.¹⁶⁵

158. CARTER, MAPPING THE MIND, *supra* note 30, at 162.

159. See CARTER, THE HUMAN BRAIN, *supra* note 72, at 158; PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1446.

160. CARTER, MAPPING THE MIND, *supra* note 30, at 162; GIBB, *supra* note 57, at 69.

161. GIBB, *supra* note 57, at 69; SWEENEY, *supra* note 74, at 243.

162. CARTER, MAPPING THE MIND, *supra* note 30, at 162; SWEENEY, *supra* note 74, at 243.

163. FUNDAMENTAL NEUROSCIENCE, *supra* note 30, at 1031.

164. SWEENEY, *supra* note 74, at 241.

165. PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1442-45; MEDINA, *supra* note 30, at 101-03; SEUNG, *supra* note 122, at 187; FUNDAMENTAL NEUROSCIENCE, *supra* note 30, at 1031. H.M. was the subject of extensive research until his death in 2008. PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1442. Because H.M. remembered how to talk and his IQ was unchanged, scientists learned that memory could be separated from perception and intelligence. FUNDAMENTAL NEUROSCIENCE, *supra* note 30, at 1031. H.M. could remember his name, his job, and his childhood, so the medial temporal lobes were not the site of long-term memory storage. *Id.* at 1031. When asked to learn a new telephone number, H.M. could rehearse and repeat it for seconds to minutes, indicating his working memory was intact. PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1445. H.M. could learn new motor skills, which indicated nondeclarative memory formation did not rely on the temporal lobes. FUNDAMENTAL NEUROSCIENCE, *supra* note 30, at 1031. What H.M. could not do was recognize people he met after the surgery, learn the names of his caretakers, recite

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Nondeclarative memory became defined as any unconscious memory system that is not substantially altered when the hippocampus is damaged.¹⁶⁶ Declarative memory, the kind of memory that is critical to legal education, has been refined to mean “any conscious memory system that is altered when the hippocampus and various surrounding [brain] regions become damaged.”¹⁶⁷ Neuroscientists have used fMRI scanning in studies on live subjects to further demonstrate that a healthy hippocampus is critical to the encoding and retrieval of declarative memory.¹⁶⁸

C. MEMORY FORMATION

Memories have different life spans, some lasting minutes, the undergrad who cut you off in the law school parking lot, and others a lifetime—the time you got called on the first week of school and the professor would not move on to another student even though you never came up with a satisfactory response.¹⁶⁹ The process of converting memory traces into long-term memory is called consolidation.¹⁷⁰ Consolidation makes information more stable in the brain. The first step of consolidation is encoding.¹⁷¹

Encoding is the processing of physical sensory information—sights, sounds, language, and emotions—as it enters the brain.¹⁷² Automatic processing is the type of memory encoding that requires “minimal attentional effort.”¹⁷³ Memories encoded in this way, such as episodic memories of autobiographical experiences, are easy to recall.¹⁷⁴ And if memories of travel, special events, or law school degradation are discussed at length with law school friends, they are fluently consolidated in long-

current events, or understand where he was every morning when he woke up. PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1445. These memory problems convinced scientists that the hippocampus was integral to declarative memory formation. See MEDINA, *supra* note 30, at 102-03.

166. MEDINA, *supra* note 30, at 103.

167. *Id.*

168. FUNDAMENTAL NEUROSCIENCE, *supra* note 30, at 1035.

169. MEDINA, *supra* note 30, at 100.

170. *Id.* at 125; PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1447.

171. PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1447; MEDINA, *supra* note 30, at 125-27.

172. CARTER, THE HUMAN BRAIN, *supra* note 72, at 156; TOKUHAMA-ESPINOSA, *supra* note 35, at 261.

173. MEDINA, *supra* note 30, at 106.

174. *Id.*

term memory.¹⁷⁵

The life cycle of declarative memory, of critical importance in legal education and law firm training programs, involves four stages: encoding, storing, retrieving, and forgetting.¹⁷⁶ Encoding declarative memory information requires the application of conscious attention known as effortful processing.¹⁷⁷ In the initial moments of encoding, when memory traces enter the thinking brain via the senses, electrical activity is discharged through millions of neurons in the brain regions associated with those senses.¹⁷⁸ Data from salient experiences break out of working memory and travel to the hippocampus in the emotional brain for further processing.¹⁷⁹ The hippocampal neurons start to encode this information for permanent storage along chains of firing neurons.¹⁸⁰ This temporarily strengthened synaptic interaction, which lasts an hour or two, is called early LTP.¹⁸¹ If the sensory input is repeated after a period of time has elapsed (like when law students consolidate class notes into outlines each week), the same neurons fire together more often and late LTP occurs.¹⁸² The strongest information is sent back to the thinking brain, distributed to the parts of the cortex where it was first registered by the senses.¹⁸³ The learning process, memory encoding and consolidation, alters the structure of the brain by forging new connections of neurons and expanding the connectome of every law student.¹⁸⁴

Consolidation (enhanced by creating and studying law class outlines) makes temporarily stored fragile information (from reading and class lectures) more stable for later retrieval (on law school exams) by strengthening neural connections of the information circuit between the hippocampus and the cortex.¹⁸⁵

175. MEDINA, *supra* note 30, at 131-32.

176. *Id.* at 103.

177. *Id.* at 107.

178. *Id.* at 103, 109.

179. CARTER, THE HUMAN BRAIN, *supra* note 72, at 159.

180. *Id.* at 156, 159; SWEENEY, *supra* note 74, at 248-49.

181. MEDINA, *supra* note 30, at 134-35.

182. *Id.* at 135.

183. See CARTER, THE HUMAN BRAIN, *supra* note 72, at 159; MEDINA, *supra* note 30, at 138.

184. See CARTER, THE HUMAN BRAIN, *supra* note 72, at 156, 158; see SEUNG, *supra* note 122, at 123-24.

185. CARTER, MAPPING THE MIND, *supra* note 30, at 164; CARTER, THE HUMAN

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This dialogue between the hippocampus and the cerebral cortex takes place largely during sleep.¹⁸⁶ Researchers believe the memory consolidation process, the electrochemical marriage between the emotional brain and the thinking brain, can take from two to ten years to complete.¹⁸⁷ Once consolidation is completed, the hippocampus lets go of its relationship with the cortex.¹⁸⁸ Consolidated long-term memories, such as the expertise lawyers develop from school courses and practice experience, are distributed throughout the cortex in the brain regions where they initially entered the brain.¹⁸⁹

The memory retrieval process used by law students during an exam relies on the same neural pathways that they used for memory encoding while they studied and slept.¹⁹⁰ Physical skills, such as typing or bike riding, are implicitly transferred through repetition.¹⁹¹ Emotional learning experiences, demeaning or encouraging, are also implicitly and powerfully encoded as memories by the amygdala.¹⁹² If emotion is an element of a memory, it increases the intensity of the perception and it enhances consolidation.¹⁹³

For law students, the consolidation necessary for recall of declarative memories on assessments can be enhanced by rehearsal, practice, study, and analysis to imbue the information with meaning and link it to other important information.¹⁹⁴ If there is enough iteration between the hippocampus and the cerebral cortex, the memory is firmly established in the thinking brain and the hippocampus is no longer needed for retrieval of the memory.¹⁹⁵

BRAIN, *supra* note 72, at 159.

186. CARTER, MAPPING THE MIND, *supra* note 30, at 162, 166; CARTER, THE HUMAN BRAIN, *supra* note 72, at 159; GIBB, *supra* note 57, at 68; SWEENEY, *supra* note 74, at 246.

187. CARTER, THE HUMAN BRAIN, *supra* note 72, at 159; *see* CARTER, MAPPING THE MIND, *supra* note 30, at 162; MEDINA, *supra* note 30, at 138, 140.

188. MEDINA, *supra* note 30, at 138.

189. CARTER, THE HUMAN BRAIN, *supra* note 72, at 159; MEDINA, *supra* note 30, at 140-41; PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1448.

190. SWEENEY, *supra* note 74, at 249.

191. *Id.* at 247.

192. *Id.*

193. CARTER, THE HUMAN BRAIN, *supra* note 72, at 158; CARTER, MAPPING THE MIND, *supra* note 30, at 164.

194. *See* SWEENEY, *supra* note 74, at 246-47.

195. CARTER, MAPPING THE MIND, *supra* note 30, at 162.

Forgetting memories allows law students to prioritize and survive law school by eliminating unneeded information, such as the irritating undergraduate driver.¹⁹⁶ Rather than store irrelevant information, the brain forgets it.¹⁹⁷ Because the processes of learning, memory storage, and memory retrieval involve both the emotional and thinking brains, law students, legal educators, and lawyers should develop an understanding of the impact of emotion on cognition and the nexus between brain and body.

IV. YOUR BRAIN ON EMOTION

“An impression may be so exciting emotionally as almost to leave a scar upon the cerebral tissues.”¹⁹⁸

William James

A. EMOTIONS AND THE BRAIN–BODY LINK

The thinking brain and the emotional brain of the law student and lawyer must work in concert to encode declarative memories, such as learning the law, and consolidate them for future retrieval on law exams, in legal memos, or during arguments in court.¹⁹⁹ Sensory information in the form of emotional memory traces often accompanies visual, auditory, and language information as it first enters the brain.²⁰⁰ The nature of this emotional information can impact memory formation.²⁰¹

An emotion is an unconscious and automatic response to an emotional stimulus that results in physical changes, such as the pounding heart or sweaty palms you experienced during your first moot court oral argument.²⁰² Emotions are physiological and largely unconscious behavioral and cognitive responses that occur within both the brain and the body, when the brain detects a positively or negatively charged stimulus.²⁰³ “Emotions manifest

196. MEDINA, *supra* note 30, at 143.

197. *Id.*

198. 1 WILLIAM JAMES, THE PRINCIPLES OF PSYCHOLOGY 670 (1890).

199. *See* MEDINA, *supra* note 30, at 108-09.

200. CARTER, THE HUMAN BRAIN, *supra* note 72, at 158; TOKUHAMA-ESPINOSA, *supra* note 35, at 143-49.

201. CARTER, THE HUMAN BRAIN, *supra* note 72, at 158; SWEENEY, *supra* note 74, at 212.

202. GIBB, *supra* note 57, at 96.

203. PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1079.

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themselves outwardly in visible changes to the body.”²⁰⁴ Physical responses to emotions include blushing, muscle contractions, facial expressions, increased heart rate, and heightened blood pressure.²⁰⁵

The six primary emotions are fear, anger, sadness, disgust, surprise, and joy.²⁰⁶ Brain scan technologies have led researchers to assign negative emotions to the right hemisphere and positive emotions to the left hemisphere, and therefore, lawyers with more activity in the left would tend to be happier than those with more activity in the right hemisphere.²⁰⁷

Emotions are experienced as “powerful feelings” that add meaning to our lives.²⁰⁸ Feelings are the conscious perceptions of automatic bodily emotional responses.²⁰⁹ Feelings are “inward and private[,]” and the awareness of feelings “provide[s] incentives to adapt and act.”²¹⁰ A feeling is “the representation in working memory of the various elements” of an emotion.²¹¹

Emotional information travels through the law student brain along two parallel processing routes.²¹² The fastest route goes straight to the amygdala, which assesses it as either a threat—I didn’t do the reading and may get called on—or as an opportunity—I am prepared to be called on and want to impress the professor so she will hire me as a research assistant—and then “prime[s] the body to act appropriately.”²¹³ This “quick and dirty” route allows law students to take instant action to survive

204. SWEENEY, *supra* note 74, at 208.

205. CARTER, *THE HUMAN BRAIN*, *supra* note 72, at 124; CARTER, *MAPPING THE MIND*, *supra* note 30, at 82; SWEENEY, *supra* note 74, at 208.

206. CARTER, *THE HUMAN BRAIN*, *supra* note 72, at 127 (discussing anger, fear, sadness, disgust, and surprise); RITA CARTER, *MAPPING THE MIND* 83 (1998) (explaining that some researchers have found the primary emotions to be disgust, fear, anger, and parental love); SWEENEY, *supra* note 74, at 208 (“Most scientists recognize either four or six basic emotions. The four most elemental are fear, anger, sadness, and joy.”).

207. CARTER, *THE HUMAN BRAIN*, *supra* note 72, at 126; SWEENEY, *supra* note 74, at 208.

208. CARTER, *THE HUMAN BRAIN*, *supra* note 72, at 126 (quotation marks omitted).

209. *PRINCIPLES OF NEURAL SCIENCE*, *supra* note 122, at 1079.

210. SWEENEY, *supra* note 74, at 210.

211. LEDOUX, *supra* note 89, at 225.

212. CARTER, *MAPPING THE MIND*, *supra* note 30, at 83.

213. *Id.*; SWEENEY, *supra* note 74, at 215 (discussing this process in relation to experiencing fear).

via flight, fight, or appeasement.²¹⁴ On the slow and deliberative route, the information is processed by the cortex in the thinking brain and the hippocampus in the emotional brain.²¹⁵ If no threat is found—the professor does not engage students randomly so I know how to prepare for class—the thinking brain overrules the amygdala in the emotional brain and inhibits the fight-or-flight response.²¹⁶

Joseph LeDoux of New York University, the neuroscientist who put the amygdala on the map, has shown that more neural traffic travels up from the emotional brain to the thinking brain than down from the thinking brain to the emotional brain; thus, he believes that the emotional brain has more power to influence law student behavior than the thinking brain.²¹⁷

B. STRESS AND BRAIN-BODY EQUILIBRIUM

*"Our brain is the factory of the emotions."*²¹⁸

Don Miguel Ruiz

Four of the six universally recognized emotions are negative: fear, anger, sadness, and disgust.²¹⁹ Stress involves some combination of these adverse emotions.²²⁰ Stress, a concept borrowed from engineering, "can be defined as the amount of resistance a material offers to being reshaped and reformed."²²¹ If too great a load is placed on the beam supporting a structure or the law student trying to learn the law, it/he is damaged or collapses.²²² Walter B. Cannon and Hans Selye were key

214. CARTER, THE HUMAN BRAIN, *supra* note 72, at 125; SUSAN GREENFIELD, THE PRIVATE LIFE OF THE BRAIN: EMOTIONS, CONSCIOUSNESS, AND THE SECRET OF THE SELF 18 (2000).

215. CARTER, THE HUMAN BRAIN, *supra* note 72, at 125; CARTER, MAPPING THE MIND, *supra* note 30, at 83.

216. SWEENEY, *supra* note 74, at 215.

217. CARTER, MAPPING THE MIND, *supra* note 30, at 98 (quoting JOSEPH LEDOUX, THE EMOTIONAL BRAIN (1996)); ROBERT M. SAPOLSKY, WHY ZEBRAS DON'T GET ULCERS 323 (Henry Holt & Co. 3d ed. 2004).

218. DON MIGUEL RUIZ, THE FOUR AGREEMENTS: A PRACTICAL GUIDE TO PERSONAL FREEDOM 102 (1997).

219. CARTER, THE HUMAN BRAIN, *supra* note 72, at 127; SWEENEY, *supra* note 74, at 208.

220. See CARTER, THE HUMAN BRAIN, *supra* note 72, at 232; CARTER, MAPPING THE MIND, *supra* note 30, at 96-97.

221. PERLMUTTER & VILLOLDO, *supra* note 57, at 57.

222. *Id.*

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researchers in stress physiology.²²³ Cannon developed the fight-or-flight phenomenon to describe the stress response,²²⁴ and Selye used the term stress to describe the general unpleasantness his lab rats were experiencing when he would routinely drop, chase, and recapture them during his experiments.²²⁵ Selye noticed that the rats had a similar set of responses to a broad array of stressors and that extended exposure to general unpleasantness made them sick.²²⁶

Jeansok Kim and David Diamond developed a three-part definition of stress in humans:

- There must be a physiological response to the stressor and it must be measurable by another party;
- The stressor must be perceived as aversive; and
- The person must feel she has no control over the stressor.²²⁷

A law student's reaction to stress depends upon the individual and the length and severity of the stressor.²²⁸ Like Selye's lab rats, when law students are subjected to a broad array of stressors in the legal education environment, that general unpleasantness is likely to make them sick.²²⁹ Law students and lawyers have reported a response to law school conditions that meet the stress definition of Kim and Diamond: they suffer physiological responses to negative stressors over which they have no control.²³⁰ Bruce McEwen coined the term allostasis to provide a framework for understanding the various ways humans respond to stress.²³¹ Allostasis is the process the brain uses to

223. See SAPOLSKY, *supra* note 217, at 7-12.

224. *Id.* at 12.

225. *Id.* at 8.

226. *Id.*

227. MEDINA, *supra* note 30, at 173-74.

228. See *id.* at 182.

229. See SAPOLSKY, *supra* note 217, at 8.

230. LITOWITZ, *supra* note 7, at 10, 19; see MEDINA, *supra* note 30, at 173-74.

231. MEDINA, *supra* note 30, at 182. Of Greek origin, "allo" means variable and "stasis" means a condition of balance. *Id.* Allostasis is an expansion of the concept homeostasis which had been used to describe the body's stable internal state. *Id.*; CARTER, THE HUMAN BRAIN, *supra* note 72, at 112; SAPOLSKY, *supra* note 217, at 9-10. This idea was grounded in the theory that there is a single optimal level, number, or amount for any given quantifiable measure in the body. SAPOLSKY, *supra* note 217, at 9. This theory does not account for differing set points during various

coordinate body-wide changes.²³² The brain helps maintain stability in the body with the process of allostatic regulation.²³³ McEwen called the wear-and-tear from the stress response—the tipping point at which stress becomes toxic—“allostatic load.”²³⁴ When the law student reaches this allostatic load, “the stress-response can become [even] more damaging than the stressor.”²³⁵

The autonomic nervous system (ANS) is the neural circuitry that works with the brain to direct the law student’s physiology and maintain allostatic balance.²³⁶ Walter B. Cannon called this stability system, working to balance the right amount of alertness with relaxation and anxiety with calm, the “wisdom of the body.”²³⁷ The ANS maintains allostatic equilibrium with two divisions: the sympathetic nervous system (SNS) and the parasympathetic nervous system (PNS).²³⁸ The SNS is activated by the hypothalamic–pituitary–adrenal axis (HPAA) of the endocrine system.²³⁹ The SNS/HPAA directs fight-or-flight behaviors, and the PNS controls rest-and-digest functions.²⁴⁰ The SNS/HPAA arousal system is the body’s accelerator, and the PNS is its brake.²⁴¹

C. LIGHTING UP THE FIGHT-OR-FLIGHT SNS/HPAA

When the law student brain detects an emotional stimulus, it sends signals to three systems that control the physiological expression of emotional states: the endocrine, autonomic, and skeletal motor systems.²⁴² “The endocrine system is responsible for the secretion and regulation of hormones into the

activities, such as the difference in blood pressure when sleeping, relaxing, or exercising. SAPOLSKY, *supra* note 217, at 9.

232. SAPOLSKY, *supra* note 217, at 9.

233. *See id.* at 9-10; MEDINA, *supra* note 30, at 182.

234. MEDINA, *supra* note 30, at 182; SAPOLSKY, *supra* note 217, at 14, 70.

235. SAPOLSKY, *supra* note 217, at 13.

236. FUNDAMENTAL NEUROSCIENCE, *supra* note 30, at 729; *see* PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1066-67.

237. GAYATRI DEVI, A CALM BRAIN: HOW TO RELAX INTO A STRESS-FREE, HIGH-POWERED LIFE 37 (2012); FUNDAMENTAL NEUROSCIENCE, *supra* note 30, at 729.

238. PURVES ET AL., *supra* note 32, at 326; FUNDAMENTAL NEUROSCIENCE, *supra* note 30, at 730.

239. HANSON, *supra* note 50, at 51; *see* RATEY, *supra* note 100, at 63.

240. PURVES ET AL., *supra* note 32, at 326.

241. LINDA GRAHAM, BOUNCING BACK: REWIRING YOUR BRAIN FOR MAXIMUM RESILIENCE AND WELL-BEING 201 (2013).

242. PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1079.

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bloodstream.”²⁴³ The autonomic system mediates physiological changes in the body, including the cardiovascular system.²⁴⁴ The skeletal motor system controls behaviors such as freezing, flight, fight, and facial expressions.²⁴⁵

The human response to stress enables the fight-or-flight reaction necessary for survival and is known as the SNS/HPAA.²⁴⁶ This response was highly adaptive during the period of time when humans needed to flee from predators, but it can be destructive in law school and legal practice.²⁴⁷ Psychologists have identified two kinds of stress: acute and chronic stress.²⁴⁸ Acute stress is short-lived and can be helpful in dealing with situations such as a novel intellectual problem or a significant physical challenge.²⁴⁹ Chronic stress is long lasting and is caused by experiences such as a troubled intimate relationship, financial struggles, job loss, treatment for a life-threatening illness, or attending law school.²⁵⁰

When stress persists for a few hours or days, a law student may experience a bad mood.²⁵¹ Longer-term stress can cause stress-related disorders such as panic attacks, anxiety, or depression; the physical effects include increased blood pressure, heart palpitations, breathlessness, dizziness, irritability, chest pain, abdominal discomfort, sweating, chills, or increased muscle tension.²⁵² These symptoms are caused by the stress response originating in the emotional brain, which activates the endocrine and autonomic systems, together the SNS/HPAA.²⁵³

The law student SNS/HPAA is ignited by “the brain’s panic button,” the amygdala.²⁵⁴ The amygdala is alert to threats—I might fail this final exam and blow my GPA—and to opportunities—I want to impress the cute girl in my class with

243. PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1080.

244. *Id.*

245. *Id.*

246. *See id.* at 1066.

247. *See* FUNDAMENTAL NEUROSCIENCE, *supra* note 30, at 803.

248. PERLMUTTER & VILLOLDO, *supra* note 57, at 59.

249. *Id.*

250. *Id.*; *see* LITOWITZ, *supra* note 7, at 10, 19.

251. *See* CARTER, THE HUMAN BRAIN, *supra* note 72, at 127.

252. *Id.* at 232.

253. *See* PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1079.

254. RATEY, *supra* note 100, at 62.

my intellectual prowess—and initiates the quick and dirty route to the body's fight-or-flight response.²⁵⁵ The amygdala signals two other parts of the emotional brain: the thalamus to focus attention and the hypothalamus to release stress hormones.²⁵⁶

The two main stress hormones secreted by the endocrine system are adrenalin (also known as epinephrine) and glucocorticoids (the main glucocorticoid is cortisol).²⁵⁷ Cortisol indicates to the SNS/HPAA to elevate heart rate and blood pressure, mobilize energy, slow digestion, and suppress immune responses.²⁵⁸ The evolutionary purpose for these responses is to allow the skeletal motor system to respond to ensure survival.²⁵⁹

Our stress responses were shaped to help humans manage immediate predator threats and address problems that could be resolved within seconds or minutes.²⁶⁰ The purpose was to mobilize our muscles to escape harm.²⁶¹ When chronic stress causes a lengthy stress response in the law student, both the brain and body suffer.²⁶² Too much adrenaline causes surges in blood pressure and scarring in the blood vessels, which increases the risk of stroke and heart attack.²⁶³ Chronic stress reduces and impairs the white blood cells necessary to fight infection and eventually cripples the immune system.²⁶⁴

Law student and lawyer stress-related diseases are caused by problems in allostatic regulation where the stress response is

255. See citations *supra* note 214.

256. HANSON, *supra* note 50, at 52.

257. CARTER, THE HUMAN BRAIN, *supra* note 72, at 232; MEDINA, *supra* note 30, at 174; PERLMUTTER & VILLOLDO, *supra* note 57, at 60; SWEENEY, *supra* note 74, at 40; FUNDAMENTAL NEUROSCIENCE, *supra* note 30, at 804; PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1409. The pituitary gland and the hypothalamus in the emotional brain tell the adrenal gland sitting atop the kidneys to release adrenalin and glucocorticoids. CARTER, THE HUMAN BRAIN, *supra* note 72, at 232; PERLMUTTER & VILLOLDO, *supra* note 57, at 60. Glucocorticoids are steroid hormones, and the major glucocorticoid is cortisol. FUNDAMENTAL NEUROSCIENCE, *supra* note 30, at 804.

258. PERLMUTTER & VILLOLDO, *supra* note 57, at 60; FUNDAMENTAL NEUROSCIENCE, *supra* note 30, at 804; see SAPOLSKY, *supra* note 217, at 13.

259. See PERLMUTTER & VILLOLDO, *supra* note 57, at 60; PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1079.

260. MEDINA, *supra* note 30, at 175.

261. *Id.*

262. See *id.* at 176.

263. *Id.*

264. *Id.*

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either repeatedly turned on or cannot be turned off.²⁶⁵ Long-term elevated levels of glucocorticoids resulting from chronic stress have been associated with the following physical conditions:

- Impaired immune response;
- Increased appetite and food cravings;
- Increased body fat;
- Increased symptoms of PMS and menopause;
- Decreased muscle mass;
- Decreased bone density; and
- Decreased libido.²⁶⁶

Chronic stress also produces the following emotional conditions:

- Increased mood swings, irritability, and anger;
- Increased anxiety; and
- Increased depression.²⁶⁷

Because the panic button amygdala is hardwired to react to trouble, the law student brain suffers from a negativity bias,²⁶⁸ where the mind can trigger the stress response by simply imagining a threatening situation.²⁶⁹ Executive control within the thinking brain is diminished during SNS/HPAA arousal, so it becomes difficult for the anxious law student to put the brakes on worries that may or may not come to pass.²⁷⁰ Law school and law practice are filled with sources of stress that initiate the SNS/HPAA response, such as intense workload, the expectation of 24/7 availability, technology overload, and a loss of the intimacy of face-to-face connections.²⁷¹ The legal workplace is a

265. See SAPOLSKY, *supra* note 217, at 16; SHAWN TALBOTT, THE CORTISOL CONNECTION: WHY STRESS MAKES YOU FAT AND RUINS YOUR HEALTH-AND WHAT YOU CAN DO ABOUT IT 30-33 (2007).

266. TALBOTT, *supra* note 265, at 22.

267. *Id.*

268. HANSON, *supra* note 50, at 42, 53; RATEY, *supra* note 100, at 62.

269. RATEY, *supra* note 100, at 63 (referring to a statement made by neuroscientist, Bruce McEwen).

270. See HANSON, *supra* note 50, at 50-53.

271. See DEVI, *supra* note 237, at 22-33.

common stressor for lawyers,²⁷² and emotional responses to problems spark the SNS/HPAA response more often than the presence of actual peril.²⁷³

Activation of the SNS/HPAA stress response causes circular damage in the emotional brain of the stressed-out law student or lawyer.²⁷⁴ It heightens stimulation of the terror-prone amygdala, which produces more cortisol.²⁷⁵ The cortisol suppresses the hippocampus, which normally curbs the amygdala, leading to more cortisol production.²⁷⁶ The amygdala is over-sensitized, and the hippocampus is compromised.²⁷⁷

Many law students and lawyers spend their lives lit up in SNS/HPAA overdrive, believing their performance is enhanced by the adrenaline rush.²⁷⁸ This predicament may be fueled by caffeine and other substances.²⁷⁹ Living in chronic SNS/HPAA arousal redirects resources away from building a strong immune system and maintaining cognitive well-being.²⁸⁰ Neuroscientists have proven that cognitive performance is diminished during the SNS/HPAA state, but thanks to neuroplasticity, it can be reversed when law students and lawyers develop greater PNS control.²⁸¹

D. CHILLING OUT: THE REST-AND-DIGEST PNS

The other half of the law student brain-body equilibrium system is the parasympathetic nervous system (PNS).²⁸² The “rest-and-digest” PNS conserves energy and produces a feeling of calm and contentment.²⁸³ It promotes digestion and nutrient absorption, slows the heart rate, lowers blood pressure, and curbs

272. RATEY, *supra* note 100, at 83.

273. HANSON, *supra* note 50, at 50.

274. *Id.* at 52-53; *see* RATEY, *supra* note 100, 66-67.

275. HANSON, *supra* note 50, at 52-53.

276. *Id.* at 53.

277. *Id.* at 57 (calling this a “bad combination”).

278. *See* DEVI, *supra* note 237, at 7.

279. *See id.*

280. HANSON, *supra* note 50, at 55-56.

281. *Id.* at 52-60; RATEY, *supra* note 100, at 67-71; *see* DEVI, *supra* note 237, at 83-86.

282. HANSON, *supra* note 50, at 58-59; FUNDAMENTAL NEUROSCIENCE, *supra* note 30, at 734.

283. CHUDLER, *supra* note 55, at 35; HANSON, *supra* note 50, at 59.

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the release of adrenaline.²⁸⁴ The PNS limits heat loss and promotes rest.²⁸⁵ Where the SNS stimulates arousal, defense, and escape, the PNS supports nourishment and procreation and also restores allostatic equilibrium after SNS activation.²⁸⁶

Law students and lawyers can enhance the PNS, cultivate the neurology of calm, and foster resilience in the face of stress.²⁸⁷ Strengthening the PNS requires practicing deep relaxation, contemplative practices, and guided imagery.²⁸⁸

Researchers began studying the impact of stress on cognition using mice and rats.²⁸⁹ These little creatures advanced our knowledge and helped us learn about how to protect the human brain against stress until scanning technologies made non-invasive research on the human brain possible.²⁹⁰

E. STRESS AND COGNITION—OF RODENTS AND MEN

Because it is much more difficult to study the human brain than the animal brain, extensive brain research has been done using mice and rats.²⁹¹ Topics of keen interest to researchers include learning²⁹² and emotional response.²⁹³ Brain imaging technologies have been used in recent years to study the learning and emotional processes in brain-damaged humans.²⁹⁴ Because so many parallel discoveries have been made in brain research on both rats and humans, findings from rodent research should be assumed to apply to law students, law professors, and lawyers.²⁹⁵

284. WILLIAM J. BROAD, *THE SCIENCE OF YOGA: THE RISKS AND THE REWARDS* 90 (2012); DEVI, *supra* note 237, at 53; SWEENEY, *supra* note 74, at 41; FUNDAMENTAL NEUROSCIENCE, *supra* note 30, at 734.

285. FUNDAMENTAL NEUROSCIENCE, *supra* note 30, at 736.

286. PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 353, 1066.

287. *See* DEVI, *supra* note 237, at 37; GRAHAM, *supra* note 241, at 208.

288. AMEN, *supra* note 30, at 167; HANSON, *supra* note 50, at 110; NERISON, *supra* note 9, 154-55.

289. LEDOUX, *supra* note 89, at 218; PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1409.

290. *See* LEDOUX, *supra* note 89, at 218.

291. LEDOUX, *supra* note 89, at 218; PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1409.

292. HORSTMAN, *BRAVE NEW BRAIN*, *supra* note 59, at 15-16; SAPOLSKY, *supra* note 217, at 232.

293. *See* LEDOUX, *supra* note 89, at 218.

294. *Id.*

295. *Id.* at 220. The Allen Brain Atlas is a research project of the Allen Institute for Brain Science designed to advance human brain research through the study of

Considerable research has been conducted on the hippocampus and amygdala—components of the emotional brain—in rats.²⁹⁶ In rodents, new neurons born in the hippocampus are integrated into neural circuits.²⁹⁷ The presence of glucocorticoids suppresses normal rates of neurogenesis in rodent hippocampi.²⁹⁸ Damage to the hippocampus can create a destructive cycle where greater amounts of glucocorticoids are released, producing additional hippocampal atrophy.²⁹⁹ “[T]he tendency of glucocorticoids to damage the hippocampus increases the over-secretion of glucocorticoids” causing more hippocampal damage.³⁰⁰

In the law student brain, stress responses are coordinated by glucocorticoid receptors in the hippocampus.³⁰¹ There are abundant glucocorticoid receptors in the hippocampus making it very responsive to stress,³⁰² and chronic high glucocorticoid exposure leads to hippocampal neurodegeneration and cell

the mouse brain. Sara Ball et al., *The Human Brain Online: An Open Resource for Advancing Brain Research*, 10 PLOS BIOLOGY, Dec. 27, 2012, at 1-3, available at <http://www.plosbiology.org/article/fetchObject.action?uri=info%3Adoi%2F10.1371%2Fjournal.pbio.1001453&representation=PDF>; see ALLEN BRAIN ATLAS, <http://www.brain-map.org/> (last visited Jan. 29, 2014); *Publications*, ALLEN INST. FOR BRIAN SCI., <http://www.alleninstitute.org/science/publications/index.html> (last visited Jan. 29, 2014). A recent study shows a 79% similarity in the expression of approximately 1,000 genes in the visual cortex of both mouse and human. Ball et al., *supra*, at 2 (citing Zeng Hongkui et al., *Large-Scale Cellular-Resolution Gene Profiling in Human Neocortex Reveals Species-Specific Molecular Signatures* (2012), available at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3328777/>). In his 2013 State of the Union Address, President Obama proposed the Brain Activity Map (BAM) project, a ten-year research agenda designed to map the human connectome and provide a greater understanding of the function of the neural wiring in the human brain. See Barack Obama, Address Before a Joint Session of Congress on the State of the Union 3 (Feb. 12, 2013), available at <http://www.whitehouse.gov/the-press-office/2013/02/12/president-barack-obamas-state-union-address-prepared-delivery>; John Markoff, *Obama Seeking to Boost Study of Human Brain*, N.Y. TIMES, Feb. 18, 2013, available at 2013 WLNR 3995035; Maia Szalavitz, *Brain Map: President Obama Proposes First Detailed Guide of Human Brain Function*, TIME MAG. (Feb. 19, 2013), http://healthland.time.com/2013/02/19/brain-map-president-obama-proposes-first-detailed-guide-of-human-brain-function/?hpt=hp_t2.

296. HORSTMAN, BRAVE NEW BRAIN, *supra* note 59, at 15-16; LEDOUX, *supra* note 89, at 218-25.

297. PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1409.

298. *Id.*; see SWEENEY, *supra* note 74, at 294.

299. PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1409.

300. SAPOLSKY, *supra* note 217, at 387.

301. PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1320.

302. MEDINA, *supra* note 30, at 177; FUNDAMENTAL NEUROSCIENCE, *supra* note 30, at 804.

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death.³⁰³ Remaining hippocampal neurons “no longer work as well.”³⁰⁴ The complexity of neural networks is diminished as they weaken or get disconnected at the synapse.³⁰⁵ Glucocorticoids kill cells in the hippocampus, impairing its ability to make synaptic connections in neural networks that make law student learning and consolidation of declarative memory possible.³⁰⁶ When hippocampal neurons die, learning is nearly impossible for law students.³⁰⁷

The impact of stress on law student cognition includes deterioration in memory, concentration, problem-solving, math performance, and language processing.³⁰⁸ Curiosity is dampened, and creativity is diminished.³⁰⁹ A paralysis sets in, limiting motivation and the ability to break out of repetitive behavior patterns.³¹⁰ Research has shown that hippocampi shrink in size in people with major depression.³¹¹ Exercise, healthful sleep, and antidepressants can reverse law student and lawyer hippocampal atrophy and increase the rate of neurogenesis, new brain cell development.³¹²

That neurons in the hippocampus—the brain region so important to learning and memory formation and one of only two places in the brain where neurogenesis occurs—can be harmed or killed by exposure to stress hormones creates significant implications for law students, legal educators, law schools, and legal employers.³¹³ Neuroplasticity allows every law student and

303. FUNDAMENTAL NEUROSCIENCE, *supra* note 30, at 804; HORSTMAN, DAY IN THE LIFE, *supra* note 58, at 57; SWEENEY, *supra* note 74, at 124.

304. SAPOLSKY, *supra* note 217, at 215.

305. *Id.* at 217.

306. FUNDAMENTAL NEUROSCIENCE, *supra* note 30, at 804; DOIDGE, *supra* note 30, at 240; MEDINA, *supra* note 30, at 179; *see* AAMODT & WANG, *supra* note 30, at 86; AMEN, *supra* note 30, at 248; CARTER, MAPPING THE MIND, *supra* note 30, at 96; DAVID A. SOUSA, HOW BRAIN SCIENCE CAN MAKE YOU A BETTER LAWYER 25 (2009).

307. PERLMUTTER & VILLOLDO, *supra* note 57, at 61.

308. MEDINA, *supra* note 30, at 178.

309. PERLMUTTER & VILLOLDO, *supra* note 57, at 61.

310. *Id.*

311. SAPOLSKY, *supra* note 217, at 221. Hippocampi also shrink in those with post-traumatic stress disorder and for those who experience repeated jet lag. *Id.*

312. PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1409; MEDINA, *supra* note 30, at 163, 179; SWEENEY, *supra* note 74, at 294; *see* PERLMUTTER & VILLOLDO, *supra* note 57, at 87 (discussing a protein called brain-derived neurotrophic factor (BDNF) which aids in creating new neurons).

313. DOIDGE, *supra* note 30, at 248; LEDOUX, *supra* note 89, at 223; MEDINA, *supra* note 30, at 179; PERLMUTTER & VILLOLDO, *supra* note 57, at 61; SAPOLSKY, *supra*

lawyer to self-fashion a cognitive wellness plan.³¹⁴ The practice of law demands maximum cognitive function, and the profession is notoriously stressful.³¹⁵ Law students, law professors, and lawyers have the capacity to enhance their brains and augment their parasympathetic nervous systems in order to improve performance.³¹⁶ Researchers should seek to:

- identify sources of stress in legal education and legal work environments,
- limit these stressors, and
- implement cognitive wellness training programs and practices.

V. RECOMMENDATIONS FOR NEURAL SELF-HACKING

*Your brain is the most modifiable part of your whole body, and you can rewire your brain by how you use it every single day.*³¹⁷

Sandra Bond Chapman

A. THRIVE, NOT SURVIVE

Many innovative companies promote wellness to provide vibrant workplaces and thriving employees.³¹⁸ Research shows that perks such as onsite gyms, work/life balance programs, stress management classes, mindfulness training, and nutrition coaching improve the bottom line.³¹⁹ These corporate amenities foster a preeminent achievement culture. There have been achievement cultures throughout history.³²⁰ The objective of the ancient Greeks was to assist every male citizen in achieving the

note 217, at 215-23.

314. See KATHLEEN TAYLOR, *THE BRAIN SUPREMACY: NOTES FROM THE FRONTIERS OF NEUROSCIENCE* 3 (2012).

315. See Krieger, *supra* note 29, at 113-15; Rosen, *supra* note 29, at 161-62; see also LITOWITZ, *supra* note 7, at 16-26; NERISON, *supra* note 9, at 15-39; LEVIT & LINDER, *supra* note 12, at 6-8; MCCLURG, *supra* note 2, at 315-18.

316. See HALLOWELL, *supra* note 38, at 29.

317. SANDRA BOND CHAPMAN, *MAKE YOUR BRAIN SMARTER: INCREASE YOUR BRAIN'S CREATIVITY, ENERGY, AND FOCUS* 4 (2013).

318. HALLOWELL, *supra* note 38, at 31 (referring to companies like Google, SAS, Whole Foods Market, the Cleveland Clinic, and Cisco Systems).

319. *Id.*; see CHADE-MENG TAN, *SEARCH INSIDE YOURSELF: THE UNEXPECTED PATH TO ACHIEVING SUCCESS, HAPPINESS (AND WORLD PEACE)* 3 (2012).

320. DAVID SHENK, *THE GENIUS IN ALL OF US: WHY EVERYTHING YOU'VE BEEN TOLD ABOUT GENETICS, TALENT, AND IQ IS WRONG* 118 (2010).

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human ideal, and Greek society fostered this achievement culture with robust public education, mentoring, contests, and an emphasis on the journey rather than the outcome.³²¹ Development of an achievement culture requires healthy competition, imbued with a deep undercurrent of respect, concern, and admiration for all participants.³²²

Neuroscience can explain the success of achievement cultures. Achievement cultures provide brain-boosting benefits and promote environments rich with cognitive power. Leaders in achievement cultures have made cognitive well-being a priority, reaping benefit at both the individual and institutional levels.³²³ Learning about the neuroscience of cognitive wellness is critical to protecting brain function and enhancing cognitive performance. Legal educators have the power to bring this information to the attention of their law students and to create a neuroscience-powered achievement culture in law schools. Law students need not wait for institutional change to alleviate the impact a stressful law school learning environment has on their learning. Their professional identity, along with their capacity to build practice skills and a legal knowledge base, are at risk. Law students must make cognitive wellness a priority by engaging in some of the recommended practices in this Article. This will require subordinating other activities in favor of exercise, more sleep, and contemplative practices. Going to the gym with classmates will provide long-lasting cognitive benefit. Taking a mindfulness or meditation seminar will activate the PNS and calm the amygdala. Replacing less healthful activities such as cocktail hour, playing video games, or watching television could yield the time law students and lawyers require to optimize cognitive performance.

Carnegie declared that the competitive learning environment and grade curve are obstacles to legal education reform,³²⁴ and neuroscience reveals the impact of the hidden curriculum is likely brain damage to law students, resulting in obstacles to their learning.³²⁵ Law practice stressors cause increased anxiety,

321. SHENK, *supra* note 320, at 119.

322. *See id.*

323. HALLOWELL, *supra* note 38, at 31.

324. SULLIVAN ET AL., *supra* note 15, at 31.

325. *See* MEDINA, *supra* note 30, at 178; *see also* SULLIVAN ET AL., *supra* note 15, at 29-32.

depression, substance abuse, and suicide.³²⁶ Law students, law faculty, and lawyers should be educated about mitigation of stress-related damage to the hippocampus, the role of sleep in memory formation, and enhancing PNS rest-and-digest function with contemplative practices.³²⁷

Cognitive wellness initiatives can improve neurobiological brain function and enhance PNS performance. Aerobic exercise and adequate sleep nourish and heal the brain,³²⁸ and the PNS is augmented with mindfulness, meditation, yoga, relaxation, and gratitude practices. Law students, law professors, and lawyers cannot only manage their brains for personal and professional benefit, but also to enhance their impact on society.³²⁹ Law schools and law firms can make the culture shift to supportive and democratized achievement cultures. This type of legal education innovation could result in high demand for law school admissions, similar to the desire for employment at workplaces that offer wellness perks. Neuroplasticity, the most promising of human features, allows every brain to become what is demanded of it.³³⁰

*We are what we repeatedly do. Excellence, then, is not an act,
but a habit.*³³¹
Aristotle

B. EXERCISE

Overworked lawyers make sacrifices to meet billable hour requirements, client needs, and court deadlines. Law students are no different. Most of them probably prefer to get exercise on a daily basis, but they may abandon their commitment to exercise under the strain of considerable reading and writing assignments, especially during their first year of law school. The

326. LITOWITZ, *supra* note 7, at 16-26; NERISON, *supra* note 9, at 15-39; LEVIT & LINDER, *supra* note 12, at 6-8.

327. See PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1409; MEDINA, *supra* note 30, at 163, 179; NERISON, *supra* note 9, 154-55; PERLMUTTER & VILLOLDO, *supra* note 57, at 87.

328. See MEDINA, *supra* note 30, at 15, 159-63; HORSTMAN, BRAVE NEW BRAIN, *supra* note 59, at 15; RATEY, *supra* note 100, at 49-50.

329. See NIKOLAS ROSE & JOELLE M. ABI-RACHED, NEURO: THE NEW BRAIN SCIENCES AND THE MANAGEMENT OF THE MIND 22-23, 222 (2013).

330. SHENK, *supra* note 320, at 30.

331. Aristotle, BRAINYQUOTE, <http://www.brainyquote.com/quotes/quotes/aristotle145967.html#RDF6OpSpxdEA47Mc.99> (last visited Jan. 29, 2014).

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same may be true for law faculty juggling the responsibilities of teaching and scholarship. Exercise is the wrong activity to eliminate.

Research has shown exercise provides cognitive restoration in people of all ages, from children to the elderly.³³² Getting at least thirty minutes of aerobic exercise two or three times per week, plus some strength training, will provide a cognitive benefit to law students and lawyers.³³³ In rodent studies, scientists have found that neurogenesis results in five thousand to ten thousand new neurons born in rat hippocampi every day.³³⁴ Rats that spend time on a running wheel generate twice the new brain cells as those that are sedentary.³³⁵

A school district in a suburb of Chicago has been testing the academic benefits of aerobic exercise since the early 1990s.³³⁶ Naperville District 203 has turned 19,000 students into some of the fittest and smartest in the United States with a fitness-oriented physical education (PE) program where students are assessed based on time spent with an increased heart rate.³³⁷ The most compelling data from the program is from the 1999 Trends in International Mathematics and Science Study (TIMSS), designed to compare the science and math knowledge of students from different countries.³³⁸ Typically about half the students from Asian countries, but only 7% of American students, score in the top tier.³³⁹ However, approximately 97% of the Naperville 203 eighth-graders took the test, and on science they scored first, just ahead of Singapore.³⁴⁰ On math, they scored sixth—behind Singapore, Korea, Taiwan, Hong Kong, and Japan.³⁴¹ All U.S. students combined ranked 18th in science and 19th in math.³⁴²

The Naperville program has influenced others through

332. MEDINA, *supra* note 30, at 13-18; PERLMUTTER & VILLOLDO, *supra* note 57, at 148.

333. MEDINA, *supra* note 30, at 15.

334. HORSTMAN, BRAVE NEW BRAIN, *supra* note 59, at 15.

335. *Id.*; RATEY, *supra* note 100, at 49-50.

336. RATEY, *supra* note 100, at 9, 14-15.

337. *Id.* at 10-13.

338. *Id.* at 13.

339. *Id.*

340. *Id.* at 14.

341. RATEY, *supra* note 100, at 14.

342. *Id.*

PE4life, an organization that trains PE educators about the fitness-academic performance link.³⁴³ A teacher in Titusville, Pennsylvania converted his PE program, and since 2000, the standardized test scores of Titusville students have gone from below state average to 17% above the average in reading and 18% above the average in math.³⁴⁴ In 2001, the California Department of Education found that “fit kids scored twice as well on academic tests as their unfit peers.”³⁴⁵ In 2004, a multi-disciplinary panel of researchers reviewed more than 850 studies on the impact of physical activity on school kids that confirmed the academic benefits demonstrated by the California study and showed that exercise has a positive influence on memory and concentration.³⁴⁶

Exercise benefits the law student brain in three ways: it enhances blood and oxygen flow; it elevates the levels of key neurotransmitters; and it stimulates the production of brain cell building blocks such as Brain Derived Neurotropic Factor (BDNF).³⁴⁷ Exercise prompts blood vessels to produce nitric oxide, which in turn improves blood flow deeper into body tissues.³⁴⁸ The more exercise, the greater the benefits provided by the bloodstream.³⁴⁹ This includes distribution of food and elimination of waste.³⁵⁰ The entire body benefits from the improved functioning that increased blood flow renders.³⁵¹ In the brain, exercise increases blood volume in the dentate gyrus, a layer of the hippocampus.³⁵² The increase in blood flow helps to maintain the health and functioning of the hippocampus.³⁵³

Three powerful neurotransmitters are increased by exercise: serotonin, norepinephrine, and dopamine.³⁵⁴ Serotonin

343. RATEY, *supra* note 100, at 31.

344. *Id.* at 31-32.

345. *Id.* at 21.

346. *Id.* at 22.

347. AMEN, *supra* note 30, at 110; HORSTMAN, BRAVE NEW BRAIN, *supra* note 59, at 29; MEDINA, *supra* note 30, at 22; PERLMUTTER & VILLOLDO, *supra* note 57, at 87-97; RATEY, *supra* note 100, at 38.

348. MEDINA, *supra* note 30, at 21.

349. *Id.* at 21-22.

350. *Id.* at 22.

351. *Id.*

352. CARTER, THE HUMAN BRAIN, *supra* note 72, at 65; PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 349; MEDINA, *supra* note 30, at 22.

353. MEDINA, *supra* note 30, at 22.

354. RATEY, *supra* note 100, at 37-38.

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modulates brain activity and “influences mood, impulsivity, anger, and aggressiveness.”³⁵⁵ Norepinephrine amplifies brain signals that activate attention, motivation, and perception.³⁵⁶ Dopamine increases reward and satisfaction and influences learning.³⁵⁷ Exercise not only elevates the levels of these neurotransmitters, but also restores their delicate balance in the brain.³⁵⁸

BDNF is a protein that acts like a fertilizer for hippocampal neurons.³⁵⁹ BDNF helps create new neurons, protects existing neurons, and encourages synapse formation—the connection between neurons vital for thinking and learning.³⁶⁰ Exercise creates new brain cells and enhances the production of BDNF.³⁶¹ “When [the] brain doesn’t create as many new cells as it loses, aging occurs.”³⁶² The gene that turns on BDNF is activated by exercise,³⁶³ calorie reduction, intellectual stimulation, curcumin, and the omega-3 fat known as docosahexaenoic acid (DHA).³⁶⁴

Lab rats that voluntarily choose to spend time on a running wheel produce significantly more BDNF than sedentary rats.³⁶⁵ Researchers have shown a direct relationship between the elevated levels of BDNF in the fit rats and their ability to learn.³⁶⁶ An examination of the impact of exercise on human cognition shows results similar to the rodent studies. A study on elderly individuals who exercised twenty minutes per day for twenty-four weeks showed a 1,800% improvement in attention, language ability, and memory compared to the control group.³⁶⁷

355. RATEY, *supra* note 100, at 37.

356. *Id.*

357. *Id.* at 38.

358. *Id.*

359. AMEN, *supra* note 30, at 110; MEDINA, *supra* note 30, at 22.

360. AAMODT & WANG, *supra* note 30, at 89; DEEPAK CHOPRA & RUDOLPH E. TANZI, *SUPER BRAIN: UNLEASHING THE EXPLOSIVE POWER OF YOUR MIND TO MAXIMIZE HEALTH, HAPPINESS, AND SPIRITUAL WELL-BEING* 35 (2012); *PRINCIPLES OF NEURAL SCIENCE*, *supra* note 122, at 1202-03; PERLMUTTER & VILLOLDO, *supra* note 57, at 87.

361. AMEN, *supra* note 30, at 110; PERLMUTTER & VILLOLDO, *supra* note 57, at 88.

362. AMEN, *supra* note 30, at 110.

363. DOIDGE, *supra* note 30, at 254-55; MEDINA, *supra* note 30, at 22; PERLMUTTER & VILLOLDO, *supra* note 57, at 88-89.

364. PERLMUTTER & VILLOLDO, *supra* note 57, at 88-97.

365. *Id.* at 88; RATEY, *supra* note 100, at 44-45.

366. *See* citations *supra* note 365.

367. PERLMUTTER & VILLOLDO, *supra* note 57, at 88.

A large study of elderly women demonstrated exercise lowered the risk of cognitive impairment by about 20%.³⁶⁸ BDNF also improves the rate of learning.³⁶⁹ In 2007, German researchers discovered that people learned vocabulary words 20% faster after exercise than before and that the rate of learning correlated directly with BDNF levels in the brains of the subjects.³⁷⁰

BDNF encourages neurogenesis, neuroplasticity, and protects neurons from trauma and environmental toxins.³⁷¹ In addition to exercise, there are two dietary elements that enhance BDNF production: curcumin and DHA.³⁷² Curcumin, the active ingredient in the spice turmeric, activates a genetic switch that turns on the genes that produce antioxidants and increase BDNF production.³⁷³ In India, where turmeric is used in curry, the incidence of Alzheimer's disease is only about 25% as common as in the United States.³⁷⁴ "Inflammation is responsible for a number of brain [diseases], including Alzheimer's, Parkinson's, attention deficit hyperactivity disorder (ADHD), and multiple sclerosis."³⁷⁵ DHA is a brain fat responsible for aiding synaptic connection, regulating inflammation, and enhancing gene expression for the production of BDNF.³⁷⁶

Learning requires strengthening of the affinity between neurons through repeated activation.³⁷⁷ The presence of BDNF at the synapse enhances long-term potentiation (LTP), the process that is required to store memories.³⁷⁸ BDNF, the key link between movement and learning, is crucial for maximizing law student and lawyer cognition.³⁷⁹

Three other hormones work closely with BDNF to build and maintain brain cell circuitry: IGF-1 (insulin-like growth factor); VEGF (vascular endothelial growth factor); and FGF-2 (fibroblast

368. PERLMUTTER & VILLOLDO, *supra* note 57, at 89.

369. RATEY, *supra* note 100, at 45.

370. *Id.*

371. PERLMUTTER & VILLOLDO, *supra* note 57, at 95.

372. *Id.* at 93-95.

373. *Id.* at 93.

374. *Id.*

375. *Id.* at 94.

376. PERLMUTTER & VILLOLDO, *supra* note 57, at 94.

377. RATEY, *supra* note 100, at 39.

378. *See id.*

379. *Id.* at 40-43.

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growth factor).³⁸⁰ During exercise, BDNF helps the brain increase the uptake of IGF-1, which activates the production of glutamate and encourages new BDNF receptors, which supports long-term memory formation.³⁸¹ VEGF builds capillaries in the body and brain, and FGF-2 helps tissue growth and aids long-term potentiation.³⁸² Aging, stress, and depression cause a drop in the three growth factors and BDNF, but activity increases them and enhances neurogenesis at the same time.³⁸³ A lifestyle that includes regular exercise will encourage production of BDNF and these important growth factors and provide a powerful boost to the brains of law students and lawyers.³⁸⁴

Exercise also has a unique capacity to engage the law student SNS and improve the connectome. The SNS is activated by aerobic activity when breathing becomes more rapid and heart rate increases.³⁸⁵ Instead of fueling the SNS fight-or-flight response, exercise beneficially retools the law student brain by creating neural networks that produce BDNF and growth factors, as well as by increasing key neurotransmitters: serotonin, norepinephrine, dopamine, and GABA.³⁸⁶

In addition to the brain benefits of aerobic exercise, scientists are just starting to investigate the role of complex motor movements that involve skill building.³⁸⁷ The cerebellum in the primitive brain coordinates motor movement, and the neurons connecting the cerebellum to the thinking brain are “proportionally thicker in humans than in monkeys.”³⁸⁸ One study compared running rats with rats that were taught complex motor skills such as walking on balance beams and rope ladders.³⁸⁹ After two weeks, “the acrobatic rats had a 35 percent increase of BDNF in the cerebellum,” while the running rats had none in that brain region.³⁹⁰

380. RATEY, *supra* note 100, at 51.

381. *Id.* at 52.

382. *Id.*

383. *Id.* at 53.

384. PERLMUTTER & VILLOLDO, *supra* note 57, at 89; RATEY, *supra* note 100, at 72-73.

385. RATEY, *supra* note 100, at 107.

386. *Id.* at 37, 107.

387. *Id.* at 246-47.

388. *Id.* at 41.

389. *Id.* at 55.

390. RATEY, *supra* note 100, at 55.

While aerobic exercise increases and balances neurotransmitters, creates new blood vessels that elevate growth factors, and generates and strengthens new neurons in the hippocampus, complex movement strengthens and expands neural networks.³⁹¹ Even though these networks are created by movement, they can be coopted for cognition.³⁹² Practicing complex motor skills with activities such as tennis, dance, martial arts, and yoga also thicken the myelin protecting the neurons and ramping up the speed and quality of the signals in the connectome.³⁹³ For law students and lawyers, the most effective cognitive fitness plan should include activities that require complex physical skill building.³⁹⁴

When creating a plan to optimize brain function, each law student and lawyer must decide how much exercise to incorporate into their daily regimen. Research shows that the more fit the body, the greater brain resilience and cognitive and psychological function.³⁹⁵ A normal body mass index (BMI) and a robust cardiovascular system is a great start.³⁹⁶ The National Heart, Blood, and Lung Institute website has a BMI calculator that can assist in evaluating individual fitness.³⁹⁷ Our genes are coded for consistent activity from a time when we had to spend most of our time foraging or hunting for food.³⁹⁸ To fully engage our endurance metabolism, law students and lawyers should find time to participate in low or moderate-intensity activity every day and high-intensity activity a couple of times per week.³⁹⁹

C. SLEEP

Law students, law faculty, and lawyers require adequate and restful sleep to maximize their cognitive capacity. In addition to exercise, improving sleep is an important strategy for enhancing

391. RATEY, *supra* note 100, at 55-56.

392. *Id.* at 56.

393. *Id.*

394. *See id.*

395. *See id.* at 245-51.

396. RATEY, *supra* note 100, at 247.

397. *See Calculate Your Body Mass Index*, NAT'L INST. OF HEALTH, <http://www.nhlbi.nih.gov/guidelines/obesity/BMI/bmicalc.htm> (last visited Dec. 23, 2013).

398. RATEY, *supra* note 100, at 248.

399. *See id.* at 248-49.

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the brain's learning potential and mind-body connection.⁴⁰⁰ Sufficient sleep is critical for memory consolidation.⁴⁰¹

Sleep occurs in cycles in which the brain transitions through five different stages of sleep.⁴⁰² When falling asleep, law students surrender a state of conscious awareness to Stage 1 light sleep.⁴⁰³ During Stage 2, brain waves slow, while Stage 3 is a mix of fast and slow brain waves.⁴⁰⁴ The body reaches Stage 4, which is slow brain waves, and then reverses the cycle through sleep Stages 3, 2, and 1.⁴⁰⁵ After this initial pattern, the brain enters its first Stage 5 REM sleep, which takes ninety minutes to two hours.⁴⁰⁶ After completing two full cycles, the brain only returns to Stage 3 for the third cycle and Stage 2 for the 4th cycle before entering into REM sleep.⁴⁰⁷ People who manage to get the recommended eight hours of sleep have the benefit of four REM sleep cycles.⁴⁰⁸ Adults spend about 50% of their sleep in Stage 2 and about 30% in Stage 5 REM sleep.⁴⁰⁹ An infant spends about 50% of his sleep in Stage 5 REM sleep.⁴¹⁰

The hippocampus and the amygdala are among the most active parts of the brain during REM sleep.⁴¹¹ Communication between neurons happens at rates that are equal to or higher than when the brain is awake.⁴¹² Bruce McNaughton tracked the activity of hippocampal neurons in rats while learning "new explicit information."⁴¹³ The patterns of activation in specific neurons that were very active during the learning were repeated when the rat was sleeping, indicating memory consolidation of

400. TOKUHAMA-ESPINOSA, *supra* note 35, at 219.

401. *Id.* at 26, 123; DEVI, *supra* note 237, at 165-66.

402. CARTER, THE HUMAN BRAIN, *supra* note 72, at 184; SWEENEY, *supra* note 74, at 188-89.

403. *See* citations *supra* note 402.

404. *See* citations *supra* note 402.

405. CARTER, THE HUMAN BRAIN, *supra* note 72, at 184; SWEENEY, *supra* note 74, at 188.

406. *See* citations *supra* note 402.

407. CARTER, THE HUMAN BRAIN, *supra* note 72, at 184; SWEENEY, *supra* note 74, at 189.

408. *See* citations *supra* note 407.

409. SWEENEY, *supra* note 74, at 188.

410. *Id.*

411. CARTER, THE HUMAN BRAIN, *supra* note 72, at 185; *see* SAPOLSKY, *supra* note 217, at 229.

412. HORSTMAN, DAY IN THE LIFE, *supra* note 58, at 158-59.

413. SAPOLSKY, *supra* note 217, at 232.

the new information.⁴¹⁴ Brain imaging studies in humans have shown similar hippocampal activity and have demonstrated that during REM sleep, memory consolidation genes that help form new connections between neurons are activated.⁴¹⁵ Law students need sufficient time in REM sleep to consolidate the material they are learning in the law classes.

Stage 5 REM sleep is believed by scientists to play a key role in memory consolidation, in part because of a study where human subjects who were routinely awakened during REM sleep lost their ability to learn new information.⁴¹⁶ A sleep deprivation study on military subjects demonstrated that a loss of one night's sleep resulted in about a 30% loss in cognitive skill, and a loss of two night's sleep amounted to a 60% cognitive decline.⁴¹⁷ Regularly shortchanging sleep is equally damaging. A study showed that sleeping less than six hours each night, for a span of five nights, resulted in a diminished cognitive performance similar to missing two continuous nights of sleep.⁴¹⁸ Law students who short-change sleep in favor of studying will likely perform less effectively than law students who get sufficient sleep before taking exams.

Temporary cognitive loss is not the only damage sleep deprivation causes; the aging process is accelerated as well.⁴¹⁹ Sleep deprivation also impairs the ability to utilize the fuel that food provides,⁴²⁰ while stress hormones become increasingly deregulated, compromising allostatic balance.⁴²¹ One study limited thirty-year-old subjects to only four hours of sleep per night for six nights, and their body chemistry began to operate with the reduced function of a sixty-year-old.⁴²² It took almost a week for subjects to return to normal thirty-year-old allostatic equilibrium.⁴²³ Chronically elevated stress hormones caused by sleep deprivation are also responsible for increased appetite and diminished control over healthy blood-sugar levels, creating a

414. SAPOLSKY, *supra* note 217, at 232.

415. *Id.*

416. *Id.* at 227, 231; SWEENEY, *supra* note 74, at 192.

417. MEDINA, *supra* note 30, at 162.

418. *Id.*

419. *Id.*

420. *Id.*

421. *Id.* at 162.

422. MEDINA, *supra* note 30, at 162-63.

423. *Id.*

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higher risk of diabetes and obesity.⁴²⁴ Adequate sleep is the way lawyers and law professors can avoid this kind of cognitive aging.

Sleep patterns are controlled by the allostatic regulation system known as circadian rhythm.⁴²⁵ The circadian arousal system (Process C), a group of neurons, hormones, and chemicals, works to keep the body awake.⁴²⁶ The homeostatic sleep drive (Process S), different neurons, hormones, and chemicals, puts the body to sleep.⁴²⁷ Process C maintains active consciousness for about sixteen hours, when the body begins to give way to Process S to fall asleep.⁴²⁸

About 10% of humans are early chronotypes, larks who are most productive early in the day and who want to go to bed around 9 PM.⁴²⁹ Approximately 20% are late chronotypes, owls who are most alert late in the day and rarely want to retire before 3 AM.⁴³⁰ The other 70% of the population are hummingbirds who operate somewhere in the middle, with some sleeping more like larks and some more like owls.⁴³¹ Processes C and S flat-line in the afternoon, causing a desire to nap.⁴³² While some people crave a siesta more than others, studies have shown that a twenty-six minute nap improved NASA pilot performance by 34% and a forty-five minute nap improved cognition for at least six hours.⁴³³

Because sleep deprivation causes loss in cognitive skill—diminished attention, working memory capacity, executive function, quantitative skills, logical reasoning ability, mood, and both fine and gross motor control—law students, law professors, and lawyers should make adequate regular sleep a priority.⁴³⁴

D. CONTEMPLATIVE PRACTICES

Incorporating a contemplative practice into a cognitive

424. TALBOTT, *supra* note 265, at 248.

425. SWEENEY, *supra* note 74, at 176; MEDINA, *supra* note 30, at 155.

426. MEDINA, *supra* note 30, at 155.

427. *Id.*

428. *Id.* at 155-56.

429. *Id.* at 157.

430. *Id.*

431. MEDINA, *supra* note 30, at 157.

432. *Id.* at 159-60.

433. *Id.* at 159.

434. *See id.* at 162.

wellness regimen strengthens the PNS rest-and-digest system and enables law students and lawyers to induce calm on demand.⁴³⁵ Common contemplative practices include mindfulness, meditation, yoga, relaxation, and gratitude. Harvard physician Herbert Benson studied the effects of meditation, yoga, and other contemplative practices and found that they allowed practitioners to cut their heart and respiratory rates, reduce oxygen consumption, and lower high blood pressure.⁴³⁶ Benson's 1975 book, *The Relaxation Response*, became a classic on dealing with stress.⁴³⁷ The goal of contemplative practice is to become an "amygdala whisperer."⁴³⁸

1. MINDFULNESS

The best cognitive approach to dealing with stress is mindfulness.⁴³⁹ Research on mindfulness indicates that it:

- strengthens the insula in the thinking brain (the early detection system of well-being);
- increases gray matter and connections between brain regions;
- improves immune function;
- decreases distraction; and
- equips the brain to notice patterns and events before responses become overly-reactive.⁴⁴⁰

Although mindfulness has its roots in a spiritual practice, originating from the experiences and teachings of Buddha, modern Western mindfulness practice is a secular endeavor.⁴⁴¹ Buddha, the original amygdala whisperer, was trying to fully

435. See AMEN, *supra* note 30, at 167.

436. BROAD, *supra* note 284, at 95-96.

437. *Id.* at 95.

438. TAYLOR CLARK, NERVE: POISE UNDER PRESSURE, SERENITY UNDER STRESS, AND THE BRAVE NEW SCIENCE OF FEAR AND COOL 81 (2011).

439. *Id.* at 78.

440. DEVI, *supra* note 237, at 143; GRAHAM, *supra* note 241, at 256; SCOTT L. ROGERS & JAN L. JACOBOWITZ, MINDFULNESS & PROFESSIONAL RESPONSIBILITY: A GUIDE BOOK FOR INTEGRATING MINDFULNESS INTO THE LAW SCHOOL CURRICULUM 22-23 (2012).

441. See CLARK, *supra* note 438, at 80; ROGERS & JACOBOWITZ, *supra* note 440, at 19.

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experience the world.⁴⁴² He fled his home in search of himself, and he realized his mind scurried like a monkey, where his darting thoughts were the branches of trees his mind would grasp and release.⁴⁴³ Buddha learned to distance himself from his “monkey mind” and enter a state of non-judgmental awareness.⁴⁴⁴

Secular mindfulness is attention without labels, ideas, thoughts, or opinions.⁴⁴⁵ Mindfulness means “being fully aware of something” and paying attention to the moment, with acceptance and without judgment or resistance.⁴⁴⁶ It requires “emotion-introspection rather than cognitive self-reflection,” and specifically does not involve the analysis of thoughts or feelings.⁴⁴⁷ Mindfulness is a form of self-understanding involving self-awareness rather than thinking.⁴⁴⁸ Law students and lawyers may become amygdala whisperers by becoming mindful.⁴⁴⁹

An elegant application of expert mindfulness involves being able to “just drive” after another driver cuts you off.⁴⁵⁰ If you are able to “just drive” after the SNS lights up when you are startled by a distracted or aggressive driver, you feel the steering wheel, hear the engine, see the road ahead, and hold your focus on your destination.⁴⁵¹ You remain calm and your senses are focused on driving, rather than resenting the anonymous driver.⁴⁵² When faced with law school stress, “just drive” is also an effective mantra and reminder for law student mindfulness.

Mindfulness improves information processing and decision-making.⁴⁵³ It provides space between awareness, and judgments

442. CLARK, *supra* note 438, at 81.

443. *Id.* at 79-80.

444. *Id.* at 80.

445. *Id.*

446. GRAHAM, *supra* note 241, at 52; HANSON, *supra* note 50, at 83; SRINIVASAN S. PILLAY, *YOUR BRAIN AND BUSINESS: THE NEUROSCIENCE OF GREAT LEADERS* 48 (2011).

447. PILLAY *supra* note 446, at 48-49.

448. *Id.* at 50.

449. *See* CLARK, *supra* note 438, at 157, 275.

450. JULIAN FORD & JON WORTMANN, *HIJACKED BY YOUR BRAIN: HOW TO FREE YOURSELF WHEN STRESS TAKES OVER* 80-81 (2013).

451. *Id.* at 81.

452. *Id.*

453. PILLAY, *supra* note 446, at 50.

and reactions, which may encourage the onset of flow.⁴⁵⁴ Flow is a term coined by psychologist Mihaly Csikszentmihalyi to describe the state of effortless concentration when humans are so engaged in a task they lose track of time.⁴⁵⁵

Being mindful allows you to have control over your attention so that you can place it where you want and shift it to something else when you want to.⁴⁵⁶ When attention is steady, it cannot be appropriated by whatever intrudes on awareness, but remains grounded and stable.⁴⁵⁷ Developing greater control over attention is a powerful way for law students and lawyers to sculpt their brains.⁴⁵⁸

One of the most supportive achievement workplace cultures can be found at Google. The master of ceremonies, and developer of Google's Search Inside Yourself (SIY) emotional intelligence curriculum, is Chade-Meng Tan.⁴⁵⁹ The benefits of developing emotional intelligence competence include strong work performance, excellent leadership skills, and the capacity for sustainable happiness.⁴⁶⁰ Happiness as defined by Matthieu Ricard, is an optimal state of flourishing resulting from an "exceptionally healthy mind."⁴⁶¹

The SIY curriculum is comprised of three components:

- Attention training;
- Self-knowledge and self-mastery; and
- Creating useful mental habits.⁴⁶²

Attention training can improve law student amygdala regulation.⁴⁶³ Both mindfulness and meditation improve attention.⁴⁶⁴ A practitioner of mindfulness places attention on

454. GRAHAM, *supra* note 241, at 59-60.

455. DANIEL KAHNEMAN, THINKING FAST AND SLOW 40 (2011).

456. HANSON, *supra* note 50, at 177.

457. *Id.*

458. *Id.*

459. *See* TAN, *supra* note 319, at 3.

460. *Id.* at 12-16.

461. *Id.* at 15.

462. *Id.* at 7.

463. *Id.* at 20-21.

464. HANSON, *supra* note 50, at 177.

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the present moment without judgment.⁴⁶⁵ A meditator focuses mindful attention on breathing.⁴⁶⁶ Research has shown that when expert meditators were subjected to negative sounds, they showed less activation of the amygdala than novice meditators.⁴⁶⁷ Attention training at Google begins with mindfulness.⁴⁶⁸ Tan describes two levels of mindfulness: the Easy Way (bring gentle and consistent attention to your breath for two minutes, and when your attention wanders, bring it back) and the Easier Way (sit without an agenda for two minutes, shifting from doing to being).⁴⁶⁹ This mindfulness practice develops an appreciation for each moment in a law student's life.⁴⁷⁰

Breathing is a core practice in meditation and yoga—practiced for over 3,500 years—that activates the calming PNS.⁴⁷¹ This involves being aware of inhalation, exhalation, the rise and fall of the belly, and the return of attention when it wanders.⁴⁷² The objective is to stay with the sensations of each breath from beginning to end.⁴⁷³ Sustaining attention to breathing is challenging, but meditation can increase concentration and insight in practitioners.⁴⁷⁴

Google's Tan describes meditation as mental training that can bring law students to a state where the mind is both relaxed and alert at the same time.⁴⁷⁵ Meditation also trains meta-attention, the ability to know when attention has wandered.⁴⁷⁶ Meditation is training for the mind to enhance mental abilities such as attention and perception.⁴⁷⁷ Like weight training, growth in meditation comes from resistance.⁴⁷⁸ When your mind wanders and you bring it back, your attention grows stronger.⁴⁷⁹

465. HANSON, *supra* note 50, at 83.

466. *Id.* at 86-87.

467. TAN, *supra* note 319, at 20-21; PILLAY, *supra* note 446, at 112.

468. TAN, *supra* note 319, at 25.

469. *Id.* at 26-27.

470. *Id.* at 27.

471. GRAHAM, *supra* note 241, at 215; DEVI, *supra* note 237, at 64-65.

472. ROGERS & JACOBOWITZ, *supra* note 440, at 17.

473. HANSON, *supra* note 50, at 87.

474. ROGERS & JACOBOWITZ, *supra* note 440, at 17-18; HANSON, *supra* note 50, at 191-93.

475. TAN, *supra* note 319, at 30-31.

476. *Id.*

477. *Id.* at 33-35.

478. *Id.* at 34.

479. *Id.* at 35.

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The lesson: “[T]here is no such thing as a bad meditation.”⁴⁸⁰

2. MEDITATION

Meditation stimulates the PNS and dampens the SNS/HPAA stress response.⁴⁸¹ Research indicates that regular meditation practice:

- Increases gray matter in the thinking brain (prefrontal cortex, insula) and emotional brain (hippocampus);
- Expands the power of brain waves produced by large numbers of neurons firing together;
- Reduces prefrontal cortical thinning due to aging;
- Improves psychological functions such as attention, compassion, and empathy;
- Increases left frontal lobe activation, improving mood;
- Strengthens the immune system;
- Improves cardiovascular disease, asthma, type II diabetes, PMS, chronic pain, insomnia, anxiety, phobias, and eating disorders; and
- Decreases stress-related cortisol.⁴⁸²

The insula is a region in the thinking brain that is active when law students feel unwell, whether from physical illness or psychological angst.⁴⁸³ The insula sends preconscious signals of the state of well-being, much like the amygdala is the quick assessor of danger and the trigger of the SNS/HPAA stress response.⁴⁸⁴ The insula is also active during complex positive emotions, such as joy and feelings of compassion and pride, and this type of beneficial insula activation is enhanced by mediation.⁴⁸⁵

480. TAN, *supra* note 319, at 35.

481. HANSON, *supra* note 50, at 85; *see* DEVI, *supra* note 237, at 64; AMEN, *supra* note 30, at 167, 174.

482. AAMODT & WANG, *supra* note 30, at 186; AMEN, *supra* note 30, at 224; HANSON, *supra* note 50, at 85-86; TAN, *supra* note 319, at 49.

483. DEVI, *supra* note 237, at 141-42.

484. *Id.* at 143; *see supra* notes 273-74 and accompanying text.

485. DEVI, *supra* note 237, at 142-43.

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The brains of domain experts⁴⁸⁶ differ from the brains of novices, and expert brains show greater focus, attention, and neural efficiency.⁴⁸⁷ Meditators also have these strengths.⁴⁸⁸ Serial tasking is the ability to sit still and focus on just one thing.⁴⁸⁹ A serial tasker is present in the moment, can listen actively to others, can work in the flow zone to accomplish tasks, and can ignore the false sense of urgency that multi-tasking can create.⁴⁹⁰ “Experienced meditators are [effective] serial taskers.”⁴⁹¹ The ability to serial task provides focus for law studies and enhanced concentration for law practice.

The first major study of meditation in a business setting was conducted by Richard Davidson and Jon Kabat-Zinn, pioneers in contemplative neuroscience.⁴⁹² The research showed that after eight weeks of meditation, the participants showed decreased anxiety, increased brain activity associated with positive emotions, and an increased immune response to a flu shot.⁴⁹³

Chade-Meng Tan argues that meditation must become widely accessible to average people, and he points to the success of exercise as a model.⁴⁹⁴ Researchers in 1927 demonstrated that a fit individual was physiologically different from someone who was unfit.⁴⁹⁵ This started an exercise revolution with four results: everyone now knows that exercise is good for you; anyone who wants to exercise can learn how to; workplaces understand that healthy employees are good for business; and exercise is so aligned with modern life, it is taken for granted.⁴⁹⁶ Tan wants to see meditation treated like exercise where everyone understands that meditation is good for them; anyone who wants to meditate can learn to meditate; workplaces understand that meditation is good for business, and some workplaces support it; and

486. Domain experts possess domain knowledge, specialized skills, and unique vocabulary that they use to solve problems in their field of expertise. SHAFFER, *supra* note 26, at 58-61.

487. PILLAY, *supra* note 446, at 112.

488. *Id.*

489. DEVI, *supra* note 237, at 123-24.

490. *Id.*

491. *Id.* at 123.

492. TAN, *supra* note 319, at 47.

493. *Id.*

494. *Id.* at 232-33.

495. *Id.* at 233.

496. *Id.* at 233-34.

meditation is aligned with modern life and taken for granted.⁴⁹⁷

The neuroscience of cognitive fitness should be widely available to law students, law professors, and lawyers. Legal professionals need to understand that a cognitive wellness regimen is good for them, and they should know how to achieve cognitive fitness. Law schools and firms must understand that cognitive fitness is good for performance, and that cognitive wellness practices are aligned with legal education and law practice.

3. YOGA

Research has established that the dominant characteristic of yoga is that “it can slow the mind, body, and overall metabolism to foster tranquility.”⁴⁹⁸ Yoga has developed a “global following” because it is so effective at reversing stress.⁴⁹⁹ This is because yoga has the power to provide the law student or lawyer practitioner with greater control over the PNS.⁵⁰⁰

The first studies were conducted on advanced yogis beginning in the 1940s.⁵⁰¹ Researchers discovered that these experienced practitioners could slow their respiration, heart rate, and metabolism.⁵⁰² One Indian yogi, Swami Rama, could change the temperature across the length of his hand up to eleven degrees using advanced PNS control.⁵⁰³

Recent studies have been focused on the benefits yoga provides to less-experienced practitioners. In 2006, an Indian physiologist studied more than 100 men and women whose average age was thirty-three and who practiced yoga for six months.⁵⁰⁴ She found that the subjects were able to cut their basal metabolic rate, the energy spent on bodily housekeeping, by an average of 13%.⁵⁰⁵ The study also showed conspicuous

497. TAN, *supra* note 319, at 234.

498. BROAD, *supra* note 284, at 157-58 (emphasis omitted).

499. *Id.* at 158; AMEN, *supra* note 30, at 226.

500. BROAD, *supra* note 284, at 89; DEVI, *supra* note 237, at 56-57; HANSON, *supra* note 50, at 82-83.

501. *See* BROAD, *supra* note 284, at 89.

502. *Id.* at 89-90, 96-97.

503. *Id.* at 90.

504. *Id.* at 96.

505. *Id.*

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differences in benefits by gender.⁵⁰⁶ The men cut their resting energy by 8%, but the women attained reductions of 18%, more than double the metabolic drop of the men.⁵⁰⁷

Other studies have examined the presence in yogis of the GABA neurotransmitter, responsible for inhibiting neurons, producing calm, and reducing anxiety.⁵⁰⁸ In 2007, the subjects were mostly single females with an average age of twenty-six who practice yoga at least twice per week from two to ten years.⁵⁰⁹ These eight yoga practitioners increased their GABA neurotransmitter 27% after sixty minutes of yoga.⁵¹⁰ The most experienced yogis and those who practiced most had the most dramatic increases in GABA.⁵¹¹ The yogi who had a decade of yoga experience had a GABA increase of 47%, and the yogi who practiced five times a week had a GABA increase of 80%.⁵¹² In 2010, these researchers studied new yogis and found that nineteen subjects that had just started yoga raised their GABA levels 13% after only three months.⁵¹³ The study also showed that the subjects had decreased anxiety and improved moods.⁵¹⁴ Because depression is linked to low GABA levels and yoga increases GABA, enhances mood, and reduces anxiety, it appears to have particular promise for lawyers and law students who suffer from anxiety, depression, or both.⁵¹⁵

Mel Robin, author of *A Physiological Handbook for Teachers of Yogasana*, teaches that yoga engages both the PNS and the SNS.⁵¹⁶ Some poses light up the SNS (headstands) and some cool the PNS (shoulder stands).⁵¹⁷ Activities that increase the respiration rate engage the SNS.⁵¹⁸ Robin believes that the most effective yoga practices cycle through poses that activate both the SNS and PNS because they give the autonomic system a

506. BROAD, *supra* note 284, at 96.

507. *Id.*

508. *Id.* at 99.

509. *Id.* at 99-100.

510. RATEY, *supra* note 100, at 259; BROAD, *supra* note 284, at 99-100.

511. BROAD, *supra* note 284, at 100.

512. *Id.*

513. *Id.*

514. *Id.*

515. *Id.* at 98-100.

516. BROAD, *supra* note 284, at 91-95.

517. *Id.* at 91.

518. *Id.* at 94.

thorough workout and result in energetic flexibility, inner balance, and harmony.⁵¹⁹ He also states that any kind of muscle work or exercise will excite the SNS, which gives yoga and aerobic exercise something in common—the ability to engage the SNS in a beneficial way.⁵²⁰

Yoga and aerobic exercise are uniquely suited to engage the law student SNS and train the brain that signs of the fight-or-flight stress response—increased respiration and heart rate—can mean better health, increased resilience, self-mastery, and more brain power.⁵²¹ Even though these brain circuits are created by movement, they can be recruited for cognition.⁵²² The law student's thinking brain can co-opt parts of the connectome built by physical activity and use it for law school learning.⁵²³

4. RELAXATION

Being able to activate the PNS on demand is critical to law student neural enhancement. Two simple practices are relaxation and gratitude. Relaxed muscles send feedback to the emotional brain, curbing SNS arousal.⁵²⁴ These relaxation techniques can be done by law students covertly in the presence of others when stress could stimulate the SNS:

- Touch your lips (stimulates plentiful parasympathetic fibers);
- Relax your jaws and tongue;
- Bring mindful attention to tense muscles and relax them;
- Exhale slowly—the PNS is in charge of exhalation, so inhale deeply and hold for a few seconds, then slowly exhale;
- Breathe deeply—place your hand on your stomach and breathe in deeply for three to five beats, then slowly exhale for three to five beats (engages

519. BROAD, *supra* note 284, at 95.

520. *Id.* at 93-94; RATEY, *supra* note 100, at 55-56.

521. BROAD, *supra* note 284, at 93-94; RATEY, *supra* note 100, at 55-56, 107-08.

522. RATEY, *supra* note 100, at 55-56.

523. *See id.*

524. HANSON, *supra* note 50, at 80.

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diaphragm and slows heart rate); or

- Replay a mental movie—bring to mind a peaceful image or activity to activate the right hemisphere and quiet self-talk.⁵²⁵

5. GRATITUDE

Another way for the law student to cultivate the PNS is to internalize the positive.⁵²⁶ Cultivating a sense of appreciation enhances the impact of pleasant experiences.⁵²⁷ When law students practice mindful awareness of positive events, they train their neural networks to savor them. Noticing the rewarding aspects of any environment and expressing gratitude can rewire the connectome toward a positive bias. Focusing on the reward also increases the release of dopamine.⁵²⁸

A gratitude journal is a place to note things law students are thankful for or acknowledge people who have been of assistance to them. In more than 100 studies, researchers have found that people who maintain a daily gratitude practice experience more positive emotions, accomplish more personal goals, sleep better, have lower blood pressure, live an average of seven to nine years longer, and feel more alert, enthusiastic, and energetic.⁵²⁹

E. IMPROVING ANXIETY OR DEPRESSION

Law students who enter law school with anxiety or depression should continue treatment for these conditions. Law students, law professors, or lawyers who become anxious or depressed should seek treatment without delay.

“[A]ntidepressants, including the selective serotonin reuptake inhibitors [SSRIs], increase the rate of neurogenesis.”⁵³⁰ Serotonin is a neurotransmitter that enhances mood and sleep and minimizes anxiety.⁵³¹ SSRIs work by blocking the reuptake of serotonin distributed into the synapse, allowing it to remain

525. HANSON, *supra* note 50, at 80-84.

526. *Id.* at 68-69.

527. *Id.* at 68-70.

528. *Id.* at 69.

529. GRAHAM, *supra* note 241, at 274.

530. PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1409.

531. CARTER, MAPPING THE MIND, *supra* note 30, at 28; HORSTMAN, DAY IN THE LIFE, *supra* note 58, at 8; SWEENEY, *supra* note 74, at 15.

elevated.⁵³² “[T]he strength of any signal sent using serotonin is reinforced.”⁵³³ Getting treatment for anxiety and depression can reduce stress and reverse hippocampal atrophy.⁵³⁴

Research has shown that aerobic exercise and yoga can improve law student and lawyer anxiety and depression.⁵³⁵ Aerobic exercise increases BDNF and growth factor production in the brain.⁵³⁶ These neurochemicals spawn new brain cells, repair neural networks, keep cortisol in check, and balance the regulatory neurotransmitters serotonin, norepinephrine, and dopamine.⁵³⁷

Exercise triggers the release of GABA, the law student brain’s main inhibitory neurotransmitter and primary target for antianxiety medications.⁵³⁸ Yoga also increases GABA production.⁵³⁹ In the brain, “[a]nxiety is fear,” which is “the memory of danger” (being yelled at by a cranky judge).⁵⁴⁰ Anxiety disorders cause the brain to continuously relive that memory, creating a constant fear condition (anxiety about appearing in court).⁵⁴¹ Normal levels of GABA help to interrupt the anxiety feedback loop in the brain.⁵⁴² MRI scans of people with anxiety disorders show that their brains cannot distinguish between danger and non-threatening situations.⁵⁴³ There is a problem in the learning circuits and researchers believe that exercise improves anxiety disorders by increasing BDNF, GABA, and serotonin in the brain.⁵⁴⁴

While antianxiety medication will improve anxiety, combining exercise with medication helps law students learn a different response to fear.⁵⁴⁵ Exercise works on both body and

532. Oliver R. Goodenough & Micaela Tucker, *Neuroscience Basics for Lawyers*, 62 *MERCER L. REV.* 945, 952 (2011); SWEENEY, *supra* note 74, at 233.

533. Goodenough & Tucker, *supra* note 532; SWEENEY, *supra* note 74, at 233.

534. *PRINCIPLES OF NEURAL SCIENCE*, *supra* note 122, at 1409.

535. *See* BROAD, *supra* note 284, at 98-100; RATEY, *supra* note 100, at 106-08.

536. RATEY, *supra* note 100, at 78.

537. *Id.* at 78-79.

538. *Id.* at 92.

539. *See* BROAD, *supra* note 284, at 98-100.

540. RATEY, *supra* note 100, at 93.

541. *Id.*

542. *Id.* at 92.

543. *Id.* at 94-95.

544. *Id.* at 95.

545. *See* RATEY, *supra* note 100, at 108.

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brain to:

- Provide a distraction and put the mind elsewhere;
- Reduce muscle tension;
- Build brain resources by increasing BDNF, growth factors, serotonin, norepinephrine, and GABA;
- Improve resilience through self-mastery by preventing anxiety, panic attacks, and depression; and
- Reroute SNS neural circuitry by teaching the brain to associate physical sensations common to anxiety and exercise—increased heart rate and breathing—with something positive.⁵⁴⁶

Approximately 17% of American adults experience depression and about 74% of these people also experience another disorder such as anxiety or substance abuse.⁵⁴⁷ Lawyers suffer from major depression at more than triple the rates of non-lawyers.⁵⁴⁸ Depression research is largely responsible for the discoveries of the impacts of exercise on the brain.⁵⁴⁹ The process of reverse engineering accidental antidepressants, drugs designed to treat other illnesses that had a positive effect on depression, led to the revelation that these medicines increase norepinephrine, dopamine, and serotonin.⁵⁵⁰

Several sweeping studies of Americans, Dutch, and Finnish participants have shown that exercisers are less depressed, anxious, stressed, angry, and neurotic, but more socially outgoing.⁵⁵¹ In 1999, researchers at Duke University conducted a sixteen-week study of exercise and the SSRI sertraline (Zoloft).⁵⁵² They divided 156 patients into three groups: medication only, exercise only, and a combination of medication and exercise.⁵⁵³ The exercisers walked or jogged three times a week at 70–85% of

546. See RATEY, *supra* note 100, at 106-08.

547. *Id.* at 114.

548. LEVIT & LINDER, *supra* note 12, at 6.

549. RATEY, *supra* note 100, at 114.

550. *Id.* at 113-15.

551. *Id.* at 19.

552. *Id.* at 122.

553. *Id.*

their aerobic capacity for thirty minutes, plus fifteen minutes for warm-up and cool-down.⁵⁵⁴ Researchers concluded that exercise was as effective as medication and more effective over the long term.⁵⁵⁵ Six months after the study, about 30% of the exercise group remained depressed versus 52% of the medication group.⁵⁵⁶

The most significant predictor of whether a person felt better was how much he or she exercised. Every fifty minutes of weekly exercise correlated to a 50% drop in depression.⁵⁵⁷ In 2006, a small study of eight deeply depressed patients who did not respond to antidepressants showed that where medication does not work, exercise does.⁵⁵⁸ The participants lowered their score on a common depression test by 10.4 points on a seventeen-point scale, and five of the eight achieved full remission.⁵⁵⁹ In Great Britain, exercise is an immediate treatment recommendation for depressed patients, but in the United States it remains underutilized even though depression is the leading cause of disability in the U.S. and Canada, ahead of heart disease, cancer, and AIDS.⁵⁶⁰

As previously noted, MRI technology has allowed researchers to discover that people with depression have smaller hippocampi than control participants.⁵⁶¹ High levels of the stress hormone cortisol kill neurons in the hippocampus, which may explain why so many people with depression suffer from learning and memory problems.⁵⁶² Research demonstrates that when chronically stressed rats are exercised, their shrunken hippocampi grow back to a normal state.⁵⁶³

Exercise and antidepressants boost BDNF production and heal the hippocampus; thus law students and lawyers suffering from depression should add exercise to their other treatment.⁵⁶⁴ Yoga increases GABA, a neurotransmitter depleted in depressed

554. RATEY, *supra* note 100, at 122.

555. *Id.* at 122-24.

556. *Id.* at 123-24.

557. *Id.* at 124.

558. *Id.* at 125-26.

559. RATEY, *supra* note 100, at 125-26.

560. *Id.* at 114.

561. *Id.* at 128.

562. *Id.*

563. *Id.* at 79.

564. RATEY, *supra* note 100, at 78-79, 130.

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individuals, and so yoga is another treatment enhancement option.⁵⁶⁵ Because lawyers are at a high risk for depression, exercise and yoga are even more important for prevention.⁵⁶⁶

VI. CONCLUSION

*As an irrigator guides water to his fields,
as an archer aims an arrow,
as a carpenter carves wood, the wise shape their lives.*⁵⁶⁷
Buddha

Professor Robin Wellford Slocum argues that law schools need to provide law students with an understanding of the emotional brain so that as lawyers, they may better serve their clients.⁵⁶⁸ She puts forth a framework of four domains of emotional intelligence necessary for a lawyer to achieve emotional competence: self-awareness, self-management, social awareness, and relationship management.⁵⁶⁹ With these competencies, lawyers can enhance client relationships and improve the effectiveness of their legal work.⁵⁷⁰ Cognitive competence is the responsibility of each law student, law professor, and lawyer and an understanding of neuroscience developments and self-directed neuroplasticity makes cognitive enhancement possible.⁵⁷¹ With an understanding of how the emotional brain and thinking brain work together during learning and when subjected to stress, law students and lawyers can improve their individual cognitive wellness and performance.

Professor Slocum also points to law professor frustration when students seem unable to absorb course lessons, work with the nuances of legal problems, and fully develop legal skills.⁵⁷² Professors who do not understand the neuroscience of cognitive wellness may unwittingly be causing their own disappointment in

565. BROAD, *supra* note 284, at 99-100.

566. See LEVIT & LINDER, *supra* note 12, at 6-8; LITOWITZ, *supra* note 7, at 16-23; MCCLURG, *supra* note 2, at 335-37; NERISON, *supra* note 9, at 15-39; Krieger, *supra* note 29, at 113-15; Rosen, *supra* note 29, at 161; see also BROAD, *supra* note 284, at 99-100; RATEY, *supra* note 100, at 139.

567. GRAHAM, *supra* note 241, at 378.

568. Robin Wellford Slocum, *An Inconvenient Truth: The Need to Educate Emotionally Competent Lawyers*, 45 CREIGHTON L. REV. 827, 834 (2012).

569. *Id.* at 834-37.

570. *Id.* at 834-38.

571. See ROSE & ABI-RACHED, *supra* note 329, at 52.

572. Slocum, *supra* note 568, at 839.

student performance by conducting classes under stressful conditions or supporting policies that engender stress-saturated law school cultures. Law faculty who embrace neuropedagogy will construct the classrooms of the future and promote innovation within their institutions. Law schools and law firms can evolve into achievement cultures with programs designed to improve student and lawyer wellness and performance.

Professor Rhonda Magee argues that contemplative practices should be part of the required law school curriculum.⁵⁷³ She defines contemplative practice as any activity that calms the mind with the goal of developing insight.⁵⁷⁴ Benefits of contemplative practices include reduction of lawyer stress, improved client relationships, and more effective and ethical lawyering.⁵⁷⁵ Mindfulness was introduced to legal professionals in 1998 when Yale Law School held one of the first law and meditation retreats.⁵⁷⁶ Mindfulness is reaching a “tipping point” in legal education, and workshops, retreats, and courses taught for credit are held at law schools across the country.⁵⁷⁷

Learning something new, complex, and challenging helps rescue new neurons from death.⁵⁷⁸ Elizabeth Gould and Tracy Stors tracked rodent new brain cell retention by staining new brain cells and then recruiting half the subject rats into a training program.⁵⁷⁹ After four or five days of training, the rats that had learned most effectively retained the highest number of newborn neurons in the hippocampus.⁵⁸⁰ The rats that failed to learn and the rats that were not included in the training maintained very few new brain cells.⁵⁸¹ These findings convinced researchers that it was the successful learning process that aided brain cell retention, not simply the exposure to the training.⁵⁸²

Intellectual activities that include “some level of challenge,

573. Rhonda V. Magee, *Educating Lawyers to Meditate?*, 79 UMKC L. REV. 535, 537 (2011).

574. *Id.* at 546.

575. *Id.* at 555-58.

576. ROGERS & JACOBOWITZ, *supra* note 440, at 3.

577. *See id.* at 4-13.

578. HORSTMAN, BRAVE NEW BRAIN, *supra* note 59, at 16-17.

579. *Id.* at 15.

580. *Id.* at 16.

581. *Id.*

582. *Id.*

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novelty, or variety” will enhance the human brain.⁵⁸³ Lawyers are life-long learners who deal with evolving laws and novel client problems throughout their careers. The profession naturally provides an intellectually stimulating environment. But legal education is infused with general unpleasantness that causes a toxic allostatic load for many law students.⁵⁸⁴ The chronic SNS/HPAA activation continues into law practice, and lawyers suffer from abnormally high rates of anxiety and depression.⁵⁸⁵ Legal education that embraces stress-mitigation does not go far enough. Law schools must address the hidden curriculum.

Legal education can become a transformative educational experience if the Carnegie knowledge, skill, and professional identity apprenticeships are implemented within an achievement culture that supports the cognitive development of every student. Google is not an achievement culture because it provides some unusual workplace perks. It is a tribe where employees work on projects they believe in, and the cognitive health of every employee is promoted.⁵⁸⁶ It is a smart, flexible, and innovative organization that allowed a single heretic, Chade-Meng Tan, to change the status quo and create a remarkable workplace that would-be employees strive to enter.⁵⁸⁷

Law students come to law school with a desire to belong to, contribute to, and take from the tribe of lawyers.⁵⁸⁸ They want to connect to each other and apprentice to law faculty. They want to learn in achievement cultures. Innovation is curtailed within institutions designed around the ranking and sorting of participants, and the result can be institutional failure.⁵⁸⁹ Education designed around “prizes” that are available to only a few law students will likely succumb to market demand for legal education structured in supportive Google-esque achievement

583. CHAPMAN, *supra* note 317, at 60.

584. See LITOWITZ, *supra* note 7, at 16-26; MCCLURG, *supra* note 2, at 335-37; NERISON, *supra* note 9, at 15-39; Krieger, *supra* note 29, at 113-15; Rosen, *supra* note 29 at 161.

585. See LEVIT & LINDER, *supra* note 12, at 6-8; LITOWITZ, *supra* note 7, at 16-26; NERISON, *supra* note 9, at 32-39; Krieger, *supra* note 29, at 113-15.

586. See SETH GODIN, TRIBES: WE NEED YOU TO LEAD US, 3-9 (2008).

587. See *id.* at 35-49; see also Shachtman, *supra* note 38.

588. See GODIN, *supra* note 586, at 3.

589. LANI GUINIER, MICHELLE FINE, & JANE BALIN, BECOMING GENTLEMEN: WOMEN, LAW SCHOOL, AND INSTITUTIONAL CHANGE 17-19 (1997).

cultures.⁵⁹⁰ Students may not accept a stress-filled, expensive, and ineffective education much longer. When they learn about the neuroscience of cognitive wellness, they are likely to lean in and demand change within legal education.⁵⁹¹ Law schools that address the stress-inducing obstacles to innovation in legal education cited in Carnegie, such as the competitive learning atmosphere and grade curve, will enjoy Google-like market demand by transforming into achievement cultures.⁵⁹²

Given the recent developments in neuroscience showing the brain-boosting benefits of exercise and contemplative practices and the key role of sleep in consolidating memories, law students, law professors, and lawyers should implement performance-enhancing strategies for nurturing their own brains. Law schools and legal employers should strive to create thriving achievement cultures that support optimal cognitive fitness for students and lawyers. Cognitive fitness programs do not have to impact tight law school budgets. Law faculty and local lawyers who engage in fitness regimen or contemplative practices can be recruited as speakers or trainers. Students and lawyers can form affinity groups for exercise or contemplative practices, and law schools can facilitate these relationships.

Neural self-hacking is likely to be the newest fitness movement and law students, law professors, and lawyers should be among the early adopters of a regimen of cognitive wellness.

590. See LEVIT & LINDER, *supra* note 12, at 125.

591. See GODIN, *supra* note 586, at 57.

592. See SULLIVAN ET AL., *supra* note 15, at 31; Shachtman, *supra* note 38.

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APPENDIX

*Aristotle was famous for knowing everything. He taught that the brain exists merely to cool the blood and is not involved in the process of thinking. This is true only of certain persons.*⁵⁹³

Will Cuppy

Allostasis—the process the brain uses to coordinate body-wide changes and maintain stability.⁵⁹⁴

Allostatic load—the tipping point where stress becomes toxic, the wear-and-tear from the stress response.⁵⁹⁵

Amygdala—part of the emotional brain and part of memory storage capacity for emotionally-charged experiences.⁵⁹⁶

Autonomic System—mediates physiological changes in the body, including the cardiovascular system.⁵⁹⁷

Axon—part of the neuron that sends information to the dendrite of the next neuron.⁵⁹⁸

Cerebri Anatome—the first illustrated map of the brain by Thomas Willis and Christopher Wren.⁵⁹⁹

Connectome—the individual map of a brain's unique data pathways.⁶⁰⁰

Consolidation—the process of making information stable in the brain and the beginning of long-term memory formation.⁶⁰¹

CT or CAT Scan (Computerized Axial Tomography)—A series of fine x-rays are taken from many different directions, which produce many slices of the head. It shows deeper sections of the brain in greater detail and contrast between tissues, so it is

593. WILL CUPPY, *THE DECLINE AND FALL OF PRACTICALLY EVERYBODY* 40 (1950).

594. See *supra* notes 231-33 and accompanying text.

595. See citations *supra* note 234 and accompanying text.

596. See citations *supra* note 142 and accompanying text.

597. PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1079-80.

598. LEDOUX, *supra* note 89, at 40-41.

599. CARTER, *THE HUMAN BRAIN*, *supra* note 72, at 8; GIBB, *supra* note 57, at 17-19.

600. SEUNG, *supra* note 122, at xii-xiv; PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1523-24.

601. MEDINA, *supra* note 30, at 103; PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1447.

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very helpful in diagnosing tumors and blood clots.⁶⁰²

Declarative memory—“any conscious memory system that is altered when the hippocampus is damaged”; is stored in the emotional and thinking brain; and includes semantic (facts, concepts, words) and episodic (autobiographical) memories.⁶⁰³

Dendrite—part of the neuron that receives information from the previous axon.⁶⁰⁴

Emotion—an unconscious and automatic response to an emotional stimulus that causes physical changes in the body.⁶⁰⁵ The primary emotions are fear, anger, sadness, disgust, surprise, and joy.⁶⁰⁶

Emotional brain components—amygdala, hippocampus, hypothalamus, thalamus, nucleus accumbens, and ventral tegmental.⁶⁰⁷

Encoding—the processing of sensory information as it enters the brain and the first step in consolidation.⁶⁰⁸

Endocrine System—responsible for the secretion and regulation of hormones into the bloodstream.⁶⁰⁹

DTI Scan (Diffusion Tensor Imaging)—This process measures water molecules flowing within the white matter of the brain.⁶¹⁰ White matter consists of axons insulated by myelin which carry information through the brain.⁶¹¹ This technology helps illustrate the connections between different regions of the brain.⁶¹²

602. CARTER, THE HUMAN BRAIN, *supra* note 72, at 12; GIBB, *supra* note 57, at 26; HORSTMAN, BRAVE NEW BRAIN, *supra* note 59, at 74; SWEENEY, *supra* note 74, at 29.

603. CARTER, THE HUMAN BRAIN, *supra* note 72, at 158; CARTER, MAPPING THE MIND, *supra* note 30, at 162; GIBB, *supra* note 57, at 69; MEDINA, *supra* note 30, at 103.

604. LEDOUX, *supra* note 89.

605. *See supra* note 202 and accompanying text.

606. *See supra* note 206 and accompanying text.

607. CARTER, THE HUMAN BRAIN, *supra* note 72, at 64, 128; HORSTMAN, DAY IN THE LIFE, *supra* note 58, at 4-5.

608. *See supra* note 172 and accompanying text.

609. PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1080.

610. HORSTMAN, BRAVE NEW BRAIN, *supra* note 59, at 74.

611. *Id.*

612. *Id.*

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EEG Scan (Electroencephalogram)—Electrodes placed on the scalp record electrical activity caused by nerve cells firing.⁶¹³ Unusual brain waves may indicate a brain disorder.⁶¹⁴

Feelings—“the conscious perceptions of emotional responses.”⁶¹⁵

fMRI Scan (Functional Magnetic Resonance Imaging)—A huge magnet is used to track the magnetic properties of iron atoms in blood.⁶¹⁶ Because the properties of the iron change in the presence or absence of oxygen, the magnet reflects brain activity by measuring oxygenated blood traveling to different parts of the brain.⁶¹⁷ The more work a brain region is performing, the more oxygen and nutrients it consumes.⁶¹⁸ Researchers use fMRI scans to determine what parts of the brain are active during different human activities.⁶¹⁹

Glucocorticoids—steroid hormones that indicate to the autonomic system to elevate heart rate and blood pressure, mobilize energy, slow digestion, and suppress immune responses.⁶²⁰ They also kill hippocampal brain cells and suppress growth of new brain cells in the hippocampus.⁶²¹

Hippocampus—the part of the emotional brain that dialogues with the thinking brain during memory formation.⁶²² Also the site of neurogenesis.⁶²³

Long-term potentiation—a process when a chain of neurons fire together multiple times, increasing in sensitivity and the likelihood they will fire together again.⁶²⁴

613. CARTER, *THE HUMAN BRAIN*, *supra* note 72, at 12; HORSTMAN, *BRAVE NEW BRAIN*, *supra* note 59, at 73-74; SWEENEY, *supra* note 74, at 29.

614. SWEENEY, *supra* note 74, at 29.

615. *PRINCIPLES OF NEURAL SCIENCE*, *supra* note 122, at 1079.

616. GIBB, *supra* note 57, at 26.

617. *Id.* at 26-27.

618. *Id.* at 27.

619. *Id.*; see CARTER, *THE HUMAN BRAIN*, *supra* note 72, at 12-13; HORSTMAN, *BRAVE NEW BRAIN*, *supra* note 59, at 74; SWEENEY, *supra* note 74, at 29.

620. *FUNDAMENTAL NEUROSCIENCE*, *supra* note 30, at 804; *PRINCIPLES OF NEURAL SCIENCE*, *supra* note 122, at 1409.

621. See citations *supra* note 31.

622. SWEENEY, *supra* note 74, at 252.

623. See citations *infra* note 631 and accompanying text.

624. CARTER, *MAPPING THE MIND*, *supra* note 30, at 159-60; CARTER, *THE HUMAN BRAIN*, *supra* note 72, at 156; SWEENEY, *supra* note 74, at 248.

Long-term memory—memories that have been consolidated in the brain and are available for retrieval.⁶²⁵

MEG Scan (Magnetoencephalograph)—Using sensors on the scalp, MEG measures electrical activity in the brain using magnetic fields.⁶²⁶ This process is used to detect tumors and record brain region functions.⁶²⁷

Memory trace—the first sensory information received by the brain and the first step to memory encoding.⁶²⁸

MRI Scan (Magnetic Resonance Imaging)—Magnetic fields are used to create a 3-dimensional map of the brain.⁶²⁹ MRI produces slices of the head, but produces a better contrast between tissues than a CT scan.⁶³⁰

Neurogenesis—the birth of new brain cells in the hippocampus and olfactory bulbs.⁶³¹

Neurons—communication cells in the brain.⁶³²

Neurotransmitters—chemicals such as dopamine and serotonin that carry messages between neurons and across the synaptic gap.⁶³³

NIRS Scan (Near-Infrared-Spectroscopy)—Low-level light waves are beamed into the brain and the light that is reflected from each area is measured.⁶³⁴ It cannot access the deepest brain regions.⁶³⁵ This process measures the amount of fuel used by different parts of the brain.⁶³⁶

625. CARTER, THE HUMAN BRAIN, *supra* note 72, at 159; PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1448; MEDINA, *supra* note 30, at 140-41.

626. SWEENEY, *supra* note 74, at 29.

627. *Id.*; CARTER, THE HUMAN BRAIN, *supra* note 72, at 12; HORSTMAN, BRAVE NEW BRAIN, *supra* note 59, at 74.

628. PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1442.

629. SWEENEY, *supra* note 74, at 29.

630. *Id.*; CARTER, THE HUMAN BRAIN, *supra* note 72, at 13; HORSTMAN, BRAVE NEW BRAIN, *supra* note 59, at 74.

631. HORSTMAN, BRAVE NEW BRAIN, *supra* note 59, at 8; SWEENEY, *supra* note 74, at 294.

632. CARTER, THE HUMAN BRAIN, *supra* note 72, at 69.

633. CARTER, MAPPING THE MIND, *supra* note 30, at 16, 28-29; HORSTMAN, DAY IN THE LIFE, *supra* note 58, at 6.

634. CARTER, MAPPING THE MIND, *supra* note 30, at 26.

635. *Id.*

636. *Id.*

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Nondeclarative memory—unconscious memory systems, including procedural and fear memories, which are stored in the primitive or emotional brain and are not changed when the hippocampus is impaired.⁶³⁷

PET Scan (Positron-Emission Tomography)—A small amount of radioactive material is tracked through the brain using special cameras.⁶³⁸ This process measures brain activity by monitoring blood flow, oxygen levels, and glucose metabolism.⁶³⁹

Plasticity—the constant changing of neural networks in response to experience.⁶⁴⁰

Primitive brain components—brain stem, midbrain, and cerebellum.⁶⁴¹

Synapse—the communication site where the axon meets the dendrite and the electrical impulse travels via chemical between neurons.⁶⁴²

Thinking brain components—two hemispheres and the bundle of nerves connecting them (corpus callosum)⁶⁴³ and four major lobes: the frontal lobe (reasoning, planning, language); occipital lobe (vision); temporal lobe (hearing and some aspect of memory); and parietal lobe (movement, taste, temperature, touch).⁶⁴⁴

X-Ray—Electromagnetic radiation is passed through the brain where different densities absorb it at different levels, creating a negative image on light-sensitive film.⁶⁴⁵

637. MEDINA, *supra* note 30, at 101, 103; PRINCIPLES OF NEURAL SCIENCE, *supra* note 122, at 1382.

638. CARTER, THE HUMAN BRAIN, *supra* note 72, at 12; GIBB, *supra* note 57, at 26; HORSTMAN, BRAVE NEW BRAIN, *supra* note 59, at 74.

639. SWEENEY, *supra* note 74, at 29.

640. HORSTMAN, BRAVE NEW BRAIN, *supra* note 59, at 11; LEDOUX, *supra* note 89, at 9.

641. GIBB, *supra* note 57, at 36-37.

642. CARTER, THE HUMAN BRAIN, *supra* note 72, at 69; LEDOUX, *supra* note 89, at 40-42.

643. GIBB, *supra* note 57, at 41; SWEENEY, *supra* note 74, at 20.

644. CARTER, THE HUMAN BRAIN, *supra* note 72, at 66; CARTER, MAPPING THE MIND, *supra* note 30, at 14; GIBB, *supra* note 57, at 40; HORSTMAN, DAY IN THE LIFE, *supra* note 58, at 6.

645. HORSTMAN, BRAVE NEW BRAIN, *supra* note 59, at 73; SWEENEY, *supra* note 74, at 29.

Law firms face malpractice risk over substance abuse, poor mental health

'This is a problem — this is not something that should be swept under the rug,' said one legal malpractice insurer.

By **Christine Simmons** | December 04, 2018 at 12:00 AM

While there's more awareness than ever about the high rates of depression, anxiety and substance abuse in the legal profession, it's less well-recognized how an attorney's impairment can lead to malpractice claims and overall liability for their law firms.

When Dan Donnelly, who oversees claims at [ALAS, a malpractice insurer to large law firms](#), hears about claims arising from an attorney's impairment, stress is often at the root of it: a parent's death, a child's illness, a divorce.



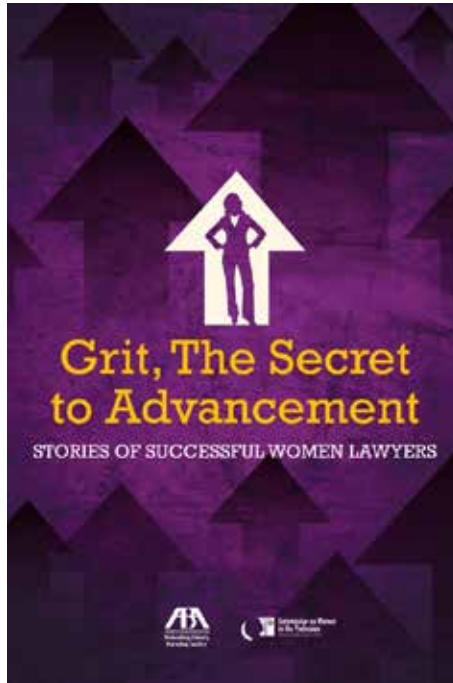
FULL ARTICLE:

<https://www.propertycasualty360.com/2018/12/04/another-hazard-of-poor-attorney-mental-health-malp/?slreturn=20190805183635>

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From the Chair of the ABA Commission on Women in the Profession

How many times have you asked yourself the question, what separates successful individuals from those who are not? Research on the intangible concept now known as “grit” has shed light on this vexing question. The Grit Project has been one of the ABA Commission on Women in the Profession’s key initiatives since 2013. Based on a study two years earlier that revealed that grit and a growth mindset were two traits shared by highly successful women lawyers, the Grit Project has provided the legal profession with tools to teach and understand these traits in order to increase the advancement of women lawyers and to help them achieve success, however that is defined for each individual.

It was obvious from the start that women beyond those in large law firms were keenly interested in learning more about grit and growth mindset. Thus, the Commission decided to expand the initial research to all legal work environments. You will read the findings from this latest research in the chapters that follow.

But we wanted to dig deeper and go beyond these findings to hear from women for whom grit and growth mindset were important to their careers and their success. The result is the collection of 47 letters contained in this volume.

As you see in these letters, everyone’s path is unique—professionally and personally. Some of

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tools to teach and understand these traits in order to increase the advancement of women lawyers and to help them achieve success, however that is defined for each individual.

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As you see in these letters, everyone's path is unique—professionally and personally. Some of these women were born with grit or a growth mindset, and being gritty came naturally. Others developed their grit later in life and/or less easily. Not everyone necessarily could put a name to these traits, but they can now, thanks to this research. Regardless of their work environments, however, they all recognized that grit played a critical role in how they were able to handle difficult situations and ultimately be productive, rather than have their frustrations lead to inertia.

Grit gives you permission to fight, to stand up for yourself, and provides you with an approach for handling those tough situations. There is a wide range in how you do that, but in the end, grit teaches you that you can say and believe that no one has more power over you than you do. No matter where you are on the grit continuum, it is never too late to learn or to increase your grittiness. Another very important message to take away from

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this research is that grit can be taught; you can learn and practice these skills. This is truly an invigorating thought. The Commission will continue to enhance the Grit Project to assist you in your effort. Be sure to visit our grit resources online at www.ambar.org/grit.

We owe a huge debt of gratitude to Dr. Milana Hogan for working with the Commission to establish and launch the Grit Project, developing and spearheading our expanded research into work environments in addition to BigLaw, and then writing this manuscript. Her dedication, commitment, and enthusiasm helped turn the idea for this publication into a reality. She had to call on her own grit to complete this research and book.

Special thanks also go to Natasha Galvez, Juanita Hernández, Elaine Johnson James, and Deborah Rhode, who reviewed the manuscript and provided valuable feedback. In addition, we appreciate and acknowledge the staff of the Commission and particularly c executive director, Melissa Wood, and the Commission's communications and publications manager, Barbara Leff, who shepherded the book through production.

Last, and most important, we thank the authors of the letters that you will read in this book. You are the heart of this work. Thank you for taking the time to tell your stories and share your life experiences. Your honesty and words of wisdom will undoubtedly inspire other women lawyers as they blaze their own trails to success.

Michele Coleman Mayes, Chair, 2014–2017
ABA Commission on Women in the Profession

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Introduction

WHY GRIT AND GROWTH MINDSET

In August 2013, the American Bar Association Commission on Women in the Profession (“Commission”) launched the Grit Project. The Grit Project was created under the leadership of then-Commission Chair Roberta “Bobbi” Liebenberg to educate women lawyers about the science behind grit and growth mindset—two important traits that many successful women lawyers have in common and that have shaped their success. Grit is defined as “perseverance and passion for long-term goals,”¹ whereas a growth mindset is defined as the belief that talent can be developed through dedication and hard work and that perseverance, persistence, and effort eventually pay off.² Grit and growth mindset are known as noncognitive traits—that is, traits that are not based purely on measures of intelligence. Both of these traits have been shown to predict achievement above and beyond traditional measures or predictors of success—such as grade point average (GPA) or class rank—that are heavily relied upon by employers, including legal employers.

The Grit Project provides individual women, bar associations, law firms, law schools, corporate legal departments, government agencies, and other organizations with tools to assess, teach, learn, and understand these traits, ultimately improving the retention and

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promotion of women lawyers in the profession and enabling women to succeed on their terms. Liebenberg describes in the letter she contributed to this book (included in its entirety in [chapter 3](#)):

[M]y vision was to create a comprehensive training program that would teach women lawyers to master these traits, empowering them to navigate everyday challenges and barriers. The Commission's grit toolkit allows women lawyers to take charge of their careers and dispel the inner voices of doubt everyone has heard, making you think you won't or can't succeed.

Information about the Grit Project and the Grit Project Toolkit and other resources are available online at www.ambar.org/grit and in [appendix B](#) of this book.

When it launched, the Grit Project relied on earlier, ground-breaking work. Dr. Angela Duckworth developed the grit construct in 2007 and has continued to study its impact in a number of academic and professional settings. Dr. Carol Dweck has spent her career studying achievement and, along the way, developed, and then extensively explored, the concept of growth mindset. The Grit Project also relied on the work of Dr. Milana Hogan, who researched the specific ways in which grit and a growth mindset impact the success of women in BigLaw (defined for research purposes as the law firms that appear on The American Lawyer's annual "Am Law 200" list). In many of these 200 BigLaw firms, one could walk into a room with the senior-most decision makers and find only one woman seated at the table—in some firms, there would be no women at the table

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at all. This state of affairs is discouraging for the many employers who recognize the significant and convincingly demonstrated benefits—financial and otherwise—associated with having women lawyers in leadership positions.³

The representation of women in BigLaw leadership has led members of the legal profession and academics to study the progression of women's careers to determine why they seem to evolve so differently than the careers of their male counterparts. Some of these studies focus on the obstacles or barriers that prevent women from reaching the most senior positions. Other studies attempt to identify the root causes of this year-over-year failure to reduce the gender gap at the leadership level. Finally, there is a body of literature that looks at women who have achieved a high level of success and seeks to ascertain common characteristics that these successful women share.

This book contributes to the latter collection of research and, in particular, expands on Dr. Hogan's 2013 study. Since the focus of her 2013 research was limited to the impact of grit and growth mindset on women in BigLaw, a group that represents only a small subset of practicing women lawyers, it seemed critically important to explore the ways in which these traits impact the many women working as solo practitioners, in small and mid-size firms, in corporations of all sizes, and in government and nonprofit positions. In other words, the Commission wanted to understand more broadly, and also very specifically, whether and how grit and a growth mindset are, or are not, characteristics common to successful women lawyers everywhere. In 2015, under the leadership of then-Commission Chair Michele Coleman Mayes, the Commission embarked on a second round

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of research to discover the answers to some of these important questions.

The Grit Project was an immediate success. We realized that the concepts of grit and a growth mindset struck a nerve among women lawyers. Bar associations, law firms, and law schools throughout the country presented programs based upon the materials provided in the Grit Project Toolkit. It was clear that women in environments beyond BigLaw were interested in these principles. We wanted to know more—we needed to know more.

It should be noted that BigLaw is not the only area where gender disparity in leadership is at play. Indeed, this is a much larger and deeper issue: for roughly 30 years, 50 percent of law school graduates have been women (and in 2017 women represented more than half of the incoming law school class), yet only 18 percent of law firm equity partners and 24 percent of general counsel are women.⁴ Although women and men have entered law school in roughly equal numbers, there has been very little movement at the top levels of leadership. It is clear, then, that the significant number of women entering the profession alone has not translated into parity at the top of the organizational chart. Instead, as lawyers ascend the leadership ranks, there is a steady decline in the number of women occupying positions of authority. By the time women arrive at the most senior leadership levels—those lawyers who hold an ownership interest in their firms or occupy the most prestigious, powerful, and best-paid positions in-house or in government—they

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represent a mere 18 to 24 percent of the overall population.⁵

As we will share in detail in the coming pages, our latest round of research suggests that grit and a growth mindset are not only traits that many highly successful women lawyers practicing in many different capacities possess, but also that they are valuable tools for women to draw upon when building successful careers in the law. Grit and growth mindset have the potential to help women navigate their way through the (sometimes overwhelming) obstacles—both personal and professional—that may present themselves along the way. Furthermore, this research provides legal employers, bar associations, law schools, and other entities with additional tools to support women in the workplace and to begin to chip away at the gender gap at the leadership level. In other words, our research suggests that there is a path to reach a different, more positive outcome.

HOW THE BOOK IS ORGANIZED

[Chapter 1](#) dives into the Commission's expanded research involving solo practitioners, law firms of all sizes, in-house legal departments, government, and nonprofits. It defines key terms: grit, perseverance, passion, deliberate practice, the grit scale, mindset, and the mindset quiz. The chapter next describes the research process—the survey used to collect data (the quantitative research), as well as interviews and other feedback (the qualitative research)—and concludes with a summary of the key findings of this research effort.

The four chapters that follow focus on specific work environments: solo practitioners

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([chapter 2](#)), law firm lawyers ([chapter 3](#)), in-house lawyers ([chapter 4](#)), and government and nonprofit lawyers ([chapter 5](#)). Each of these chapters begins with a detailed summary of the demographics of the women in that group, including the number of women surveyed, practice areas, length of practice, academic performance, family history, ambition levels, and grit and mindset scores. Each chapter also includes a description of the relevant measures of success for those lawyers. The key findings for that group are discussed next, and, last, the chapter contains letters from women lawyers representing that work environment.

In presenting the findings, we draw upon the results of the survey in addition to interviews and quotes from the letters themselves. For the women who have practiced in more than one group (for example, a participant may have started in a BigLaw firm, moved in-house, and then ultimately started her own practice), we have included their letters in the section where they are now, where they spent the greatest amount of time, or where they devoted the greatest amount of real estate in their respective letters.

Following a brief conclusion, [appendix A](#) discusses what employers can do to nurture and evaluate grit and to reward and encourage grit in their employees. [Appendix B](#) lists grit resources available through the Commission's Grit Project, and for those interested in learning more about the science of grit and growth mindset, [appendix C](#) offers a summary of the research on these important traits. This research is not limited to lawyers but instead examines research outside the legal sphere and includes a summary of some of the factors that have been known to impact female professionals across industries.

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SUCCESSFUL WOMEN LAWYERS TELL THEIR STORIES

This book goes beyond the quantitative research to offer letters from 47 successful women lawyers. The reader will find real-life examples of the critical role that grit and a growth mindset have played in these women's advancement in the legal profession and in achieving success on their own terms. These letters will inspire, reaffirm, and provide much food for thought.

Notes:

1. Duckworth, A., Peterson, C., Matthews, M., and Kelly, D. 2007. "Grit: Perseverance and passion for long-term goals." *Journal of Personality and Social Psychology* 92(6): 1087–1101.
2. Dweck, C. 2006. *Mindset: The new psychology of success*. New York: Random House.
3. Cohen, R., and Kornfeld, L. 2006. "Women leaders and the bottom line." *Bloomberg Corporate Law Journal* 1: 55–61.
4. ABA Commission on Women in the Profession. *A Current Glance at Women in the Law ...*
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5. Id.

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Faculty

Jarrett Green is a lecturer at the University of California, Irvine School of Law in Irvine, Calif., and a former Skadden Arps litigator who left his position years ago so he could help lawyers, corporate employees and other high-stress individuals experience increased resiliency, happiness, productivity, cognitive performance and overall success. He consults with and leads programs at nearly half of the AmLaw 100 firms, such as Skadden Arps, Gibson Dunn, Sullivan & Cromwell, White & Case and Mayer Brown, as well as many *Fortune 500* companies, such as US Bank, NBC-Universal, Salesforce, ViacomCBS, Allstate Insurance Company and many others. Mr. Green is a co-creator of USC Gould School of Law's nationally recognized "Mindfulness, Stress Management, and Peak Performance Program." He co-authored a forthcoming book, to be published by West Academic, titled *Happiness and Peak Performance in the Law*. In addition, he is a regular keynote speaker at legal and corporate events across the globe, combining science, humor, storytelling and easy-to-apply techniques to maximally impact audiences. Mr. Green has a Master's in psychology and certifications in Mindfulness, Executive Coaching and Stress Management.

Rebecca Simon Green is a lecturer at the University of California, Irvine School of Law in Irvine, Calif., and a former law professor who left her position years ago so she could help lawyers, corporate employees and other high-stress individuals experience increased resiliency, happiness, productivity, cognitive performance and overall success. She consults with and leads programs at nearly half of the AmLaw 100 firms, such as Skadden Arps, Gibson Dunn, Sullivan & Cromwell, White & Case and Mayer Brown, as well as many *Fortune 500* companies, such as US Bank, NBC-Universal, Salesforce, ViacomCBS, Allstate Insurance Company and many others. Ms. Green is a co-creator of USC Gould School of Law's nationally recognized "Mindfulness, Stress Management, and Peak Performance Program." She co-authored a forthcoming book, to be published by West Academic, titled *Happiness and Peak Performance in the Law*. In addition, she is a regular keynote speaker at legal and corporate events across the globe, combining science, humor, storytelling and easy-to-apply techniques to maximally impact audiences. Ms. Green has a two-year certification in Mindfulness from the UC Berkeley Greater Goods Science Center, as well as certifications in social-emotional learning and public policy.