

Relationship between Perceived Stress, Optimism, and Burnout among Medical, Dental, and Ayurvedic Students

Sanmitha DG^{1*}, Dr. R Krishnan Bhatt²

ABSTRACT

Medical schools are known to be stressful environments with never-ending academic demands to be reached with limited time and energy. Such high demands can lead to burnout and stress among health professional students. The objective of this research is to study the prevalence of and the relationship between perceived stress, optimism, and burnout among medical (MBBS), dental (BDS), and ayurvedic (BAMS) students. The difference in perceived stress, optimism, and burnout among health professional students was also studied in this study. A total of 104 samples were conveniently selected to participate in the study. The variables (Perceived stress, optimism, and burnout) were measured using “The Perceived Stress Scale (PSS)”, “The revised Life Orientation Test (LOT-R)”, and “Oldenburg Burnout Inventory (OLBI)” respectively. Descriptive statistics, Pearson’s correlation, and one-way ANOVA were used to analyze the data. The analysis of the results indicated a moderate to a high prevalence of perceived stress, low prevalence of optimism, and moderate prevalence of burnout among health professional students. A significant correlation between perceived stress, optimism, and OLBI burnout was found in this study. Interestingly, no significant correlation was seen between optimism and disengagement (OLBI component). Dental students were found to be more optimistic than medical students. The study implies that cultivating the skill of optimistic thinking, along with interventions to enhance the college environment, can help reduce burnout and stress while increasing academic achievement among health professional students.

Keywords: *Perceived stress, Optimism, Burnout, Health professional students*

Medical schools are known to be a stressful environment with never-ending academic demands to be reached with limited time and energy. Such high demands can lead to burnout and stress among health professional students. Stress is a psychological and physical response to ever-changing life demands (Shahsavarani et al., 2015). Perceived stress is the perception of how much stress a person is under a given time period. A subsequent number of researches have shown the prevalence of stress among medical students, which changes with the year of study, and the main stressors were reported to be academic and psychosocial stressors (Saipanish, 2003; Garg et al., 2017; Shah et al.,

¹Postgraduate student, MSc psychology, Kristu Jayanti college (autonomous), Bangalore, India

²Associate professor, dept of psychology, Kristu Jayanti college (autonomous), Bangalore, India

*Corresponding Author

Received: April 01, 2021; Revision Received: May 02, 2021; Accepted: May 19, 2021

Relationship between Perceived Stress, Optimism, and Burnout among Medical, Dental, and Ayurvedic Students

2010). Students have cited concerns about the future, fear of harming patients, parental expectations, fear of infection, time limitations for training, etc. as their top stressors (El-Masry et al., 2013). Even though mild levels of stress can be favorable, high levels of persisting stress can lead to psychological and physical health problems (Schneiderman, Ironson & Siegel, 2005).

Burnout is a psychological syndrome that can be defined as a prolonged response to chronic emotional and interpersonal stressors on the job, which can be defined by feelings of exhaustion, cynicism, and inefficacy (Maslach et al., 2001). According to Maslach et al. (1996), High levels of stress combined with lack of resources can lead to burnout, which can further lead to personal dysfunction and poor quality of work. Burnout syndrome, as proposed by the OLBI, is characterized by two dimensions i.e., feeling of (emotional, physical, and cognitive) exhaustion due to academic demands and detachment from one's academics (Reis, Xanthopoulou & Tsaousis, 2015). Burnout has been associated with an increased risk of depression, poor health outcomes, and poor quality of work (Kumar, 2016). Therefore, it is desirable to prevent burnout syndrome.

Optimism can be defined as a personality disposition in which individuals expect good experiences in the future, whereas pessimism refers to expectations of negative outcomes (Carver & Scheier, 1992). Scheier and Carver's (1987) study indicates that optimists use coping patterns that involve continuous positive striving in an adverse situation unlike pessimists, who are likely to get upset and disengage from the reality of stress. They tend to adjust better to stressors than pessimists (Solberg Nes, 2016). Optimism is linked positively to academic achievement among medical students (Singh & Jha, 2013). Optimistic individuals are said to perceive low levels of stress and have a lower risk of burnout (Chang et al., 2000; Gustafsson et al., 2012; Hayes et al., 2007).

Along with perceiving life as less stressful, optimists seem less likely to experience symptoms of burnout. Cross-sectional research shows that higher optimism scores are related to lower scores in the emotional exhaustion of the MBI and high personal accomplishment scores (Hojat et al., 2015). The negative relation of burnout and optimism also seem to be constant over time, even after 10, 14, and 17 years later (Fowler et al., 2020; Salmela-Aro, Tolvanen, & Nurmi, 2009). Optimism and adaptive coping are said to positively affect academic performance by preventing academic burnout (Vizoso et al., 2019).

As pointed above, medical students are presented with personal and academic stressors on a daily basis which are associated with higher risks of burnout and can result in deterioration of personal and academic life. Therefore, there is a need to study the relationship between burnout, perceived stress, and optimism to further take measures to control and reduce burnout among health professional students. Inconsistent findings regarding the relationship between perceived stress, optimism, and burnout among medical (MBBS), dental (BDS), and ayurvedic (BAMS) students also pose the need for more studies on the same. Hence, the purpose of this study is to study the prevalence of and relationship between perceived stress, optimism, and burnout among medical (MBBS), dental (BDS), and ayurvedic (BAMS) students. The study also tries to explore the variations in perceived stress, optimism, and burnout among medical (MBBS), dental (BDS), and ayurvedic (BAMS) students.

METHODOLOGY

Participants

One hundred and four Indian health professional students were conveniently selected to participate in the study. Among which there were 67 females (64%), 34 males (33%), and 3 prefer not to say (3%). The majority of the participants were from the MBBS stream (88), other participants were from the BDS (10) and BAMS (6) stream of study. The participant's ages ranged from 18 to 26 years, with a mean age of 21.4 and a standard deviation of 0.28.

Procedures

The questionnaire administering all study measure was circulated in the form of a google form among different social media platforms. A total of 109 participants filled the questionnaire, among which responses provided by 5 participants were dropped due to not fulfilling the eligibility criteria to participate in the study. The data was further analysed using SPSS, version 20.

Tools for the study

Perceived stress

The perceived stress scale (PSS) was employed to measure stress. It is a 14-item self-report inventory that measures self-appraised stress (e.g., "In the last month, how often have you been upset because of something that happened unexpectedly?"). Responses were given in the form of 5-point Likert scale, ranging from 0- "never" to 4- "very often". This questionnaire has been reported to have adequate test-retest reliability for short time periods (2 days, $r = .85$), it has also shown excellent internal consistency with Cronbach's Alpha of .85 (Cohen et al., 1983).

Optimism

The Life Orientation Test-revised (LOT-R), introduced by Scheier, Carver, and Bridges (1994), is a brief and modified version of the original Life Orientation Test (Scheier & Carver, 1985). It contains 10 items including three negatively phrased, three positively phrased, and four filler items. Participants were asked to rate the item on a 5-point Likert scale, ranging from 0 = "strongly disagree" to 4 = "strongly agree". Satisfactory validity and reliability of LOT-R are seen with acceptable factor structure and internal consistencies (i.e., Cronbach's alpha above .70), and the stability of the scale is indicated by the test-retest reliability ranging from $r = .56$ - .79 during test intervals ranging from 4 to 28 months (Scheier et al., 1994).

Burnout

Oldenburg Burnout Inventory (OLBI) was used to measure burnout in this study. It consists of sixteen questions covering two dimensions: 'exhaustion' and 'disengagement', eight questions in each dimension. The responses were given in the form of a 4-point Likert scale from 1- "strongly agree" to 4- "strongly disagree". It also demonstrates acceptable internal consistency (i.e., Cronbach's alpha above .83), items-total correlations range was up to $r = 0.62$.

Statistical techniques

Statistical analysis was performed with the help of SPSS software, version 20. Descriptive statistics (mean, standard deviation, maximum, minimum, range), Pearson correlation, One-way ANOVA was used in the present study.

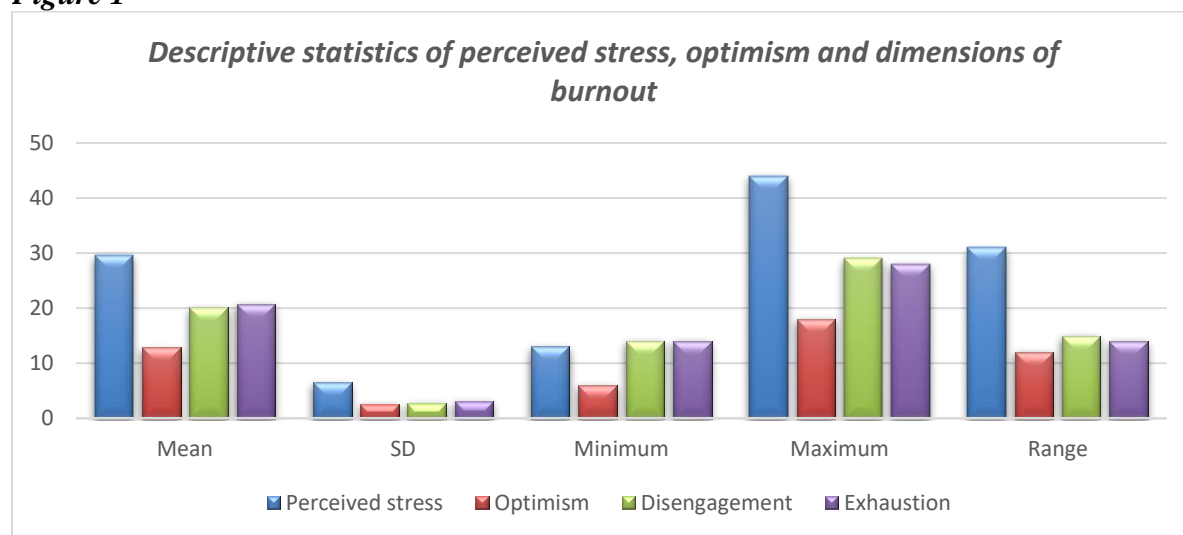
Relationship between Perceived Stress, Optimism, and Burnout among Medical, Dental, and Ayurvedic Students

Ethical consideration

The aim of the study was explained and consent of the participant was taken, through the google form, before answering the battery of questionnaires. The participant's anonymity was maintained throughout the study. It was assured that no potential harm to participants from the current study. Data analysis and research was not manipulated in any way.

RESULT

Figure 1



Descriptive statistics of all measures, including mean, standard deviation (SD), range, minimum, and the maximum score is presented in figure 1. The sample size was 104. Descriptive statistics were divided into mean and standard deviation. Perceived stress has a mean score of 29.58, a standard deviation (SD) of 6.498. Optimism has a mean score of 12.80 and an SD of 2.575. the mean and standard deviation of two dimensions of burnout is also presented in table 1. Disengagement has a mean of 20.08, SD of 2.715, and Exhaustion has a mean value of 20.81, SD of 3.163. The mean value indicates the difference between the perceived stress, optimism, and the two dimensions of burnout scores. The perceived stress score seems to be more spread out from the mean than other variables.

Table 1 Levels of perceived stress, optimism, and two components of OLBI burnout

Variables	Level	Range Score	Frequency	Percentage
Disengagement	high	>31	-	-
	moderate	24-31	9	8.7%
	low	<24	95	91.3%
Exhaustion	high	>29	-	-
	moderate	21-29	49	47.1%
	low	<21	55	52.9%
Optimism	high	17-24	9	8.6%
	moderate	9-16	88	84.7%
	low	0-8	7	6.7%
Perceived stress	high	38-56	14	13.6%
	moderate	19-37	85	81.6%
	low	0-18	5	4.8%

Relationship between Perceived Stress, Optimism, and Burnout among Medical, Dental, and Ayurvedic Students

Table 2 presents the prevalence of perceived stress, optimism, and different levels of burnout and its two components (disengagement and exhaustion) along with the range score, frequency, and percentage for the respective levels. We can observe that health professional students have 4.8% of low, 81.6% of moderate, and 13.6% of high levels of perceived stress. Prevalence of 6.7% of low, 84.7% of moderate, and 8.6% of high optimism levels is observed. The burnout scores were classified into low (70.2%), moderate (29.8%), and high (0%). 91.3% of low levels, 8.7% moderate levels, and 0% high-level disengagement is seen among the studied health professional students' population. 52.9% of the low levels, 47.1% moderate level, and 0% high level of exhaustion is observed.

Table 2 Pearson's Correlation between all study measures

	Perceived stress	Optimism	OLBI Disengagement	OLBI Exhaustion
Perceived stress	-	-.270**	.285**	.359**
Optimism		-	-.010	-.205*
OLBI Disengagement			-	.489**
OLBI Exhaustion				-

Note: *p<0.05, **p< 0.01, OLBI = Oldenburg burnout inventory

The correlation between all study measures is presented in table 2. As seen in the table, significant correlations are seen among all, except between OLBI disengagement and optimism. The Pearson correlation results showed that there was a significant weak, negative correlation ($r=-.270$) between optimism and perceived stress. Perceived stress is seen to be weakly and positively correlated with both components of burnout (disengagement and exhaustion). Optimism is observed to be weakly, negatively correlated ($r=-.205$) with one burnout component, exhaustion.

Table 3 One-way ANOVA on Perceived stress, optimism, disengagement, exhaustion, burnout

Variable	source	df	SS	MS	F	p
Perceived stress	Between group	2	48.451	24.226	.569	.568
	Within group	101	4300.933	42.583		
	Total	103	4349.385			
Optimism	Between group	2	59.038	29.519	4.780	.010
	Within group	101	623.722	6.175		
	Total	103	682.760			
Disengagement	Between group	2	13.769	6.884	.933	.397
	Within group	101	745.616	7.382		
	Total	103	759.385			
Exhaustion	Between group	2	4.005	2.002	.197	.821
	Within group	101	1026.149	10.160		
	Total	103	1030.154			
Overall burnout	Between group	2	32.518	16.259	.626	.537
	Within group	101	2622.097	25.961		
	Total	103	2654.615			

One-way ANOVA on perceived stress, optimism, and burnout for different streams of study (MBBS, BDS, BAMS) is presented in table 4. No significant difference is seen between

Relationship between Perceived Stress, Optimism, and Burnout among Medical, Dental, and Ayurvedic Students

medical, dental, and ayurvedic students on perceived stress, OLBI burnout, and both components of burnout (exhaustion and disengagement). Interestingly, we can observe a significant ($p=.010$) difference in optimism between MBBS, dental and Ayurpathy students.

Table 3.1 Posthoc comparisons using Tukey's HSD on optimism

	Mean	SD	MBBS	BDS	BAMS
MBBS	12.49	2.449	-	-2.411*	-1.345
BDS	14.90	2.923		-	1.067
BAMS	13.83	2.575			-

Note: Mean differences shown, * $p<0.05$

Posthoc comparison using Tukey's HSD on optimism for different streams of study (MBBS, BDS, BAMS) is presented in table 3.1. As we found a significant difference ($p=0.01$) for optimism among MBBS, BDS, and BAMS students, Posthoc was conducted to check which specific group differed. A significant difference ($MD=2.411$) was seen between dental (BDS) and medical (MBBS) students on optimism.

DISCUSSION

The purpose of the study was to examine the prevalence of and relationship between perceived stress, optimism, and burnout among medical (MBBS), dental, and ayurvedic students. Contributing to the previous researches, this study also demonstrated a prevalence of moderate (81.6%) and high (13.6%) levels of perceived stress among health professional students. Prevalence of moderate (84.7%) and high (8.6%) levels of optimism was seen in this study. Earlier studies show that most medical students have low optimistic traits (Iqbal et al., 2019). The results also indicated a prevalence of moderate (29.8%) levels of OLBI burnout, with a prevalence of moderate levels exhaustion (47.1%) and disengagement (8.7%). Earlier researches suggested a major prevalence of moderate or high degree burnout among medical students (Vidhukumar et al., 2020; Tipa et al., 2019).

A statistically significant correlation between perceived stress, optimism, and one component of OLBI burnout (exhaustion) is observed in the study. Interestingly, no significant correlation between optimism and disengagement was seen. Consistent with expectation, results indicated a weak negative correlation between perceived stress and optimism. This is also established in many studies suggesting that more optimistic students are less likely to experience stress. (Gustafsson et al., 2012; Hayes et al., 2007). Supporting previous studies, this study also demonstrated a weak but positive correlation between perceived stress, OLBI disengagement and OLBI exhaustion (Goldhangen et al., 2015; Krokter et al., 2014). The study indicates a weak negative correlation between optimism and one component of burnout (exhaustion). Previous studies have established a significant, weak negative correlation between optimism and both the components of burnout (Murphy, 2014). This pattern of findings indicates that individuals with greater levels of optimism are at less risks of burnout.

There was no significant difference seen between medical, dental, and ayurvedic students on perceived stress and OLBI burnout (both the components). Contradictingly, previous studies suggest that medical and dental students report high-stress levels than ayurvedic students (Omigbodun et al., 2006; Mythri et al., 2014). Studies have indicated medical (MBBS) students have more stress followed by dental and nursing students (Dutta, Michael, Patrick, 2005). Contradicting this, another research indicated that dental students had greater levels

Relationship between Perceived Stress, Optimism, and Burnout among Medical, Dental, and Ayurvedic Students

of stress than medical students in professional student stress (Murphy et al., 2009). Interestingly, a Statistically Significant difference was seen in optimism (LOT-R scores) among medical (MBBS) and dental students. The results indicate that dental students show more optimism levels than medical (MBBS) students. This finding contradicts the finding of Dulloo et al. (2016), who found no statistically significant difference in LOT-R scores between medical and dental students.

There are several practical implications of this study to prevent burnout among health professional students. Modifying pessimistic expectancies about academic and psychosocial factors into more optimistic ones may help in the reduction of perceived stress and burnout. Optimism is also positively correlated with academic achievement, hence can be a potential source of upskilling method to increase performance (Singh & Jha, 2013; Vizoso et al., 2019). Therefore, it is necessary to cultivate a positive attitude among health professional students. Interventions like mindfulness and peer-facilitated support program are effective in reducing burnout and stress among students (Moir et al., 2016; Ireland et al., 2017). Overall, the findings of this study and others suggest that it is paramount to include individual-based interventions, like promoting a more optimistic attitude, along with interventions to enhance the college environment, to prevent burnout and stress among health professional students.

LIMITATIONS AND FUTURE DIRECTION

A few limitations are prominent in the present study. First, Oldenburg burnout inventory is meant for the working population. Even though it is used by many researchers studying medical students and residents (Rohan et al., 2015; Tipa et al., 2019), the use of OLBI inventory in the non-working population might not aptly indicate measures of student burnout.

Second, mediating and moderating roles of perceived stress and optimism, respectively is found in earlier researches (Gustafsson et al., 2012; Hayes & Weathington, 2007). These roles were ignored in the present study. Future studies should consider the study of such mediating and moderating factors, along with other predictor factors associated with perceived stress, optimism, and burnout to get a holistic understanding of burnout among health professional students.

Third, there is a need for further investigation of longitudinal effects of optimism on burnout. Future research should conduct a longitudinal study on the relationship between perceived stress, optimism, and burnout.

Finally, Samples were not equally divided among medical, dental, and ayurvedic students, so they do not truly represent the population. Hence, this can be considered as a pilot study. There is a need for more future research study on the difference between medical (MBBS), dental (BDS), and ayurvedic (BAMS) students in perceived stress, optimism, and burnout to add to the limited amount of research on the same.

CONCLUSION

This study examined the relationship between perceived stress, optimism, and burnout. Optimism was found to be negatively correlated with perceived stress and exhaustion. Perceived stress was positively correlated with both the components of OLBI burnout (exhaustion and disengagement). This shows that the three variables are interrelated and optimism can be a potential concept in intervening and preventing burnout and stress among

Relationship between Perceived Stress, Optimism, and Burnout among Medical, Dental, and Ayurvedic Students

health professional students. One-way ANOVA test revealed that dental students (BDS) were more optimistic than medical students (MBBS). Whereas, perceived stress and burnout between medical, dental, and ayurvedic students were the same.

REFERENCES

- Carver, C. S., & Scheier, M. F. (2001). *Optimism, pessimism, and self-regulation*.
- Carver, C. S., Scheier, M. F., & Segerstrom, S. C. (2010). Optimism. *Clinical Psychology Review, 30*(7), 879–889. <https://doi.org/10.1016/j.cpr.2010.01.006>
- Chang, E. C., Rand, K. L., & Strunk, D. R. (2000). Optimism and risk for job burnout among working college students: Stress as a mediator. *Personality and Individual Differences, 29*(2), 255–263.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 385–396*.
- Dulloo, P., VEDI, N., & Gandotra, A. (2016). Life Orientation Test-Revised (LOT-R) Versus Academic Score in Various First Year Health Professional Students. *Journal of Clinical and Diagnostic Research: JCDR, 10*(10), CC01.
- Dutta, A., Pyles, M., & Miederhoff, P. (2005). Stress in health professions students: myth or reality? A review of the existing literature. *Journal of National Black Nurses' Association : JNBNA, 16*, 63–68.
- Fowler, J. B., Fiani, B., Kiessling, J. W., Khan, Y. R., Li, C., Quadri, S. A., Mahato, D., & Siddiqi, J. (2020). The Correlation of Burnout and Optimism among Medical Residents. *Cureus, 12*(2).
- Garg, K., Agarwal, M., & Dalal, P. K. (2017). Stress among medical students: A cross-sectional study from a North Indian Medical University. *Indian Journal of Psychiatry, 59*(4), 502–504. https://doi.org/10.4103/psychiatry.IndianJPsychiatry_239_17
- Gustafsson, H., & Skoog, T. (2012). The mediational role of perceived stress in the relation between optimism and burnout in competitive athletes. *Anxiety, Stress & Coping, 25*(2), 183–199.
- Hayes, C. T., & Weathington, B. L. (2007). Optimism, stress, life satisfaction, and job burnout in restaurant managers. *The Journal of Psychology, 141*(6), 565–579.
- Hojat, M., Vergare, M., Isenberg, G., Cohen, M., & Spandorfer, J. (2015). Underlying construct of empathy, optimism, and burnout in medical students. *International Journal of Medical Education, 6*, 12–16. <https://doi.org/10.5116/ijme.54c3.60cd>
- Iqbal, A., Nawaz, H., Sikandar, M. Z., A. M., & Shah, S. I. A. (2019). A cross-sectional study of happiness, self-esteem and optimism in medical students. *Annals of King Edward Medical University Lahore Pakistan, 25*, 1–4.
- Ireland, M. J., Clough, B., Gill, K., Langan, F., O'Connor, A., & Spencer, L. (2017). A randomized controlled trial of mindfulness to reduce stress and burnout among intern medical practitioners. *Medical Teacher, 39*(4), 409–414.
- Khan, A., & Yusoff, R. B. M. (2016). Psychometric testing of Oldenburg Burnout Inventory among academic staff in Pakistan. *International Review of Management and Marketing, 6*(4).
- Kumar, S. (2016). Burnout and doctors: prevalence, prevention and intervention. *Healthcare, 4*(3), 37.
- Maslach, C., Jackson, S., & Leiter, M. (1997). The Maslach Burnout Inventory Manual. In *Evaluating Stress: A Book of Resources* (Vol. 3, pp. 191–218).
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job Burnout. *Annual Review of Psychology, 52*(1), 397–422. <https://doi.org/10.1146/annurev.psych.52.1.397>

Relationship between Perceived Stress, Optimism, and Burnout among Medical, Dental, and Ayurvedic Students

- Moir, F., Henning, M., Hased, C., Moyes, S., & Elley, C. (2016). A Peer-Support and Mindfulness Program to Improve the Mental Health of Medical Students. *Teaching and Learning in Medicine, 28*, 1–10. <https://doi.org/10.1080/10401334.2016.1153475>
- Murphy, R. J., Gray, S. A., Sterling, G., Reeves, K., & DuCette, J. (2009). A comparative study of professional student stress. *Journal of Dental Education, 73*(3), 328–337.
- Murphy, Y. (2014). *The role of job satisfaction, resilience, optimism and emotional intelligence in the prediction of burnout*.
- Mythri, H., Saxena, S., Ananda, S. R., & Chandu, G. N. (2014). Perceived sources of stress among bioallied science students of south India. *Nursing, 148*(18.4), 14–18.
- Reis, D., Xanthopoulou, D., & Tsaousis, I. (2015). Measuring job and academic burnout with the Oldenburg Burnout Inventory (OLBI): Factorial invariance across samples and countries. *Burnout Research, 2*(1), 8–18. <https://doi.org/https://doi.org/10.1016/j.burn.2014.11.001>
- Saipanish, R. (2003). Stress among medical students in a Thai medical school. *Medical Teacher, 25*(5), 502–506.
- Salmela-Aro, K., Tolvanen, A., & Nurmi, J.-E. (2009). Achievement strategies during university studies predict early career burnout and engagement. *Journal of Vocational Behavior, 75*(2), 162–172.
- Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: assessment and implications of generalized outcome expectancies. *Health Psychology, 4*(3), 219.
- Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): a reevaluation of the Life Orientation Test. *Journal of Personality and Social Psychology, 67*(6), 1063.
- Scheier, M., & Carver, C. (1987). Dispositional Optimism and Physical Well-Being: The Influence of Generalized Outcome Expectancies on Health. *Journal of Personality, 55*, 169–210. <https://doi.org/10.1111/j.1467-6494.1987.tb00434.x>
- Scheier, M., & Carver, C. (1992). Effects of optimism on psychological and physical well-being: Theoretical overview and empirical update. *Cognitive Therapy and Research, 16*, 201–228. <https://doi.org/10.1007/BF01173489>
- Schneiderman, N., Ironson, G., & Siegel, S. D. (2005). Stress and health: psychological, behavioral, and biological determinants. *Annual Review of Clinical Psychology, 1*, 607–628. <https://doi.org/10.1146/annurev.clinpsy.1.102803.144141>
- Seegerstrom, S. C., Taylor, S. E., Kemeny, M. E., & Fahey, J. L. (1998). Optimism is associated with mood, coping, and immune change in response to stress. *Journal of Personality and Social Psychology, 74*(6), 1646.
- Shah, M., Hasan, S., Malik, S., & Sreeramareddy, C. T. (2010). Perceived Stress, Sources and Severity of Stress among medical undergraduates in a Pakistani Medical School. *BMC Medical Education, 10*(1), 2. <https://doi.org/10.1186/1472-6920-10-2>
- Shahsavarani, A. M., Azad Marz Abadi, E., & Hakimi Kalkhoran, M. (2015). Stress: Facts and theories through literature review. *International Journal of Medical Reviews, 2*(2), 230–241.
- Singh, I., & Jha, A. (2013). Anxiety, Optimism and Academic Achievement among Students of Private Medical and Engineering Colleges: A Comparative Study. *Journal of Educational and Developmental Psychology, 3*. <https://doi.org/10.5539/jedp.v3n1p222>
- Solberg Nes, L. (2016). *Chapter 51 - Optimism, Pessimism, and Stress* (G. B. T.-S. C. Fink Cognition, Emotion, and Behavior (ed.); pp. 405–411). Academic Press. <https://doi.org/https://doi.org/10.1016/B978-0-12-800951-2.00052-2>

Relationship between Perceived Stress, Optimism, and Burnout among Medical, Dental, and Ayurvedic Students

- Tipa, R. O., Tudose, C., & Pucarea, V. L. (2019). Measuring Burnout Among Psychiatric Residents Using the Oldenburg Burnout Inventory (OLBI) Instrument. *Journal of Medicine and Life*, 12(4), 354–360. <https://doi.org/10.25122/jml-2019-0089>
- Vidhukumar, K., & Hamza, M. (2020). Prevalence and Correlates of Burnout among Undergraduate Medical Students - A Cross-sectional Survey. *Indian Journal of Psychological Medicine*, 42(2), 122–127. https://doi.org/10.4103/IJPSYM.IJPSYM_192_19
- Vizoso, C., Arias-Gundín, O., & Rodríguez, C. (2019). Exploring coping and optimism as predictors of academic burnout and performance among university students. *Educational Psychology*, 39(6), 768–783. <https://doi.org/10.1080/01443410.2018.1545996>

Acknowledgement

Firstly, I would like to thank my HOD Dr. Molly Joy for giving me this opportunity. I would like to express my special thanks of gratitude to my guide Dr. Krishnan Bhatt R., for his consistent guidance and support in completing my project. I would like to extend my gratitude to the faculty member of the department of Psychology who guided me throughout my project on the topic “Relationship between perceived stress, optimism and burnout among medical, dental, and ayurvedic students”. I would also like to thank all my friends and family for their constant support in successful completion of this project.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Sanmitha DG & Bhatt R K (2021). Relationship between Perceived Stress, Optimism, and Burnout Among Medical, Dental, and Ayurvedic Students. *International Journal of Indian Psychology*, 9(2), 727-736. DIP:18.01.077.20210902, DOI:10.25215/0902.077