

# Practice of Mindfulness and Its Role in Academic Performance Among Medical Students

Piremela Naidu Govindaraju\*, Shenari Nimaya Ravindi Dias, Nadiah Batrisyia Binti Shahrul Azlan, Banusha Krishnamoorthy, Hewa Kokawalage Venura Malitha Kokawala

Faculty of Medicine, Manipal University College Malaysia, Manipal Academy of Higher Education (MAHE), Melaka, Malaysia

## Abstract

Mindfulness is the state of being aware and conscious. Mindfulness has been examined scientifically and has appeared to have many benefits to the human race. The aim of conducting this research is to assess the practice of mindfulness and its role in improving academic performance among medical students. A cross-sectional study was conducted from May 2021 to June 2021 among the undergraduate medical student (MBBS) in Manipal University College Malaysia. Data was collected by using a questionnaire that was distributed online through Google Forms to eligible undergraduate students from semesters 1 to 10 of MBBS students. Statistical tests (Unpaired t-test, ANOVA, and Pearson correlation) were done using Epi Info software (version 7.2.4.0). A total of 193 students participated in the study, 135 responses (69.9%) were females and the rest of the 58 responses were from males (30.1%). For the Level of Awareness of Mindfulness, we found that majority of the respondents were moderately aware (49.7%), while (23.8%) were well aware, (15.5%) were less aware, (6.22%) were very well aware and (4.66%) were very less aware. There was no significant association between age, nationality and gender towards mindfulness. However, there was significant association between religion and the practice of mindfulness exercises where it was found that Buddhism and those who practice mindfulness exercises had a higher mindfulness. Our study also shows that there is a positive significant, low correlation between practice of mindfulness and academic performance. The practice of mindfulness therefore increases the academic performance among medical students in MUCM.

## Keywords

Mindfulness, Academic Performance, Medical Students

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## 1. Introduction

The state of mindfulness has long been a subject of interest among researchers as a component of good mental and physical health. [1] In a Western perspective, mindfulness is commonly defined as purposefully paying attention to present moment experiences, devoid of judgment, making at intervals the individual a way of stability and non-reactive awareness [2, 3]. Drawing fresh distinctions, evaluating material from fresh angles, and being sensitive to context all contribute to

mindfulness. [4] Simply put, it can be defined as moment-to-moment awareness. [5]

The ultimate goal of mindfulness has been considered as the ability to purposefully direct ones attention on a specific target, such as the sensation of breathing, or one's present moment thoughts and emotions while maintaining a non-judgmental and accepting perspective towards oneself. [6] Modern mindfulness practitioners consider mindfulness as a state, which improves upon partaking in regular mindfulness meditation. [7]

\* Corresponding author  
E-mail address: [piremela28@gmail.com](mailto:piremela28@gmail.com) (P. N. Govindaraju)

However, the concept of mindfulness draws back its roots to more than two thousand years ago in the Eastern world. The beginning of practicing mindfulness was meditation techniques practiced in *Theravada* Buddhism described as *vipassana*, [8] the Buddhist analysis of mindfulness has “the characteristic of not swaying away from the object, and maintaining a disciplined mind. [9] At present formal and informal mindfulness- oriented activities take place, centered around meditation, such as Yoga, body scan and breathing exercises. Furthermore, mindfulness is encouraged to be practiced casually, by enhancing awareness during day-to-day activities such as eating, walking, washing the dishes. [10] Previous studies have observed that the type of meditation exercise may influence the relationship between self-reported trait mindfulness and the state of mindfulness that is obtained after participating in a meditation session. [11]

Academic performance is defined as the assessment of a student's ability in a variety of academic areas. Classroom performance, graduation rates, and standardized test results are commonly used by teachers and education administrators to assess student accomplishment. [12] The positive impact of mindfulness intervention in academic performance has been showcased in multiple studies. [13, 14] Mindfulness helps students engage more in academics by helping to see tasks in new and interesting ways. [15] Academic performance also increases by sustaining attention on one task. [16] As sustaining attention is a fundamental component of Mindfulness, [17] by improving regulation of attention, mindfulness training has found to be useful for students to maintain attention, while being less influenced by distractions. [18]

Studies have also pointed out that medical students as future health care professionals are at risk of developing high anxiety levels and therefore burnout within a short period of time. [19] Having raised levels of anxiety can impact a student's intellectual functioning in which may be the root of disturbance of academic performance as the student's memory, attention and concentration can be afflicted. [20] Mindfulness-Based Stress Reduction' intervention has already been found to benefit preclinical and clinical medical students, with decreases in psychological distress and perceived stress accompanied by increases in self compassion, empathy, spirituality, and mindfulness. [21] Mindful Student Study (MSS), the largest mindfulness randomized control trial (RCT) with university students, denote that mindfulness has moderate effects on reducing psychological distress. [22] Other characteristics or components of mindfulness could explain the shift in academic performance, such as training in various cognitive abilities (such as attention, focus, and memory), a sense of wellbeing and emotional balance, and an improvement in self-control, all of which could encourage

optimal performance in stressful and demanding situations, such as those that occur during an exam. [20]

In the Malaysian context, brief interventional meditation programs among medical students have been conducted and results have shown that the intervention group reported significantly greater improvements in depressive symptoms, anxiety, general psychiatric symptoms. [23] Recent research backs up the premise that practicing mindfulness has experimentally proven benefits in a variety of personal and academic settings. In an era when colleges are constantly looking for ways to improve student well-being, while also increasing graduation and retention rates, intentional mindfulness practice has seemed to have the ability to contribute in all of these areas. [14] Given the scarcity of studies that aim to understand the role of Mindfulness in Academic performance, [24] particularly in the Malaysian University setting, we aim to carry out this study to assess the various methods of practicing mindfulness among medical students studying in Manipal University College Malaysia. We hope to understand the practice and self- reported trait mindfulness, and its influence in academic performance among medical students. By the results of this study, we aspire to draw attention to implying mindfulness interventions to the Academic curriculum, in order to further improve the academic performance of the medical students.

## 2. Methodology

### 2.1. Study Design, Setting, Time and Population

The study conducted was a cross-sectional study among the undergraduate medical student (MBBS) in a private medical college, which is Manipal University College Malaysia, composing Muar Campus, Melaka campus and India campus. MUCM offers several courses which are Bachelor of Medicine and Bachelor of Surgery (MBBS) and Bachelor of Dental Surgery (BDS) and Foundation in Science (FIS). In MBBS, there is a total of 10 semesters, in which semester 1 to 5 are conducted in India, while the remaining 5 will be continued in Malaysia. In our study, we have included all of the MBBS students of semester 1 to 10. This study was carried out from May 2021 to June 2021.

### 2.2. Sample Size

The sample size for this study was calculated by using the Microsoft Excel Sample size Calculator. [25] Based on previous study, that had been carried out among medical students in Andhra Pradesh, they have discovered that over 18% of the students' practices yoga and another 20% implements meditation techniques as their way of releasing and managing stress in their daily activities. [26] The estimated total population was 1300

students. The minimum sample size required was 168 with a precision of 7%. In the final calculation to calculate the final sample size, with a non-response 10%, the formula below was used. [25]

$$n(\text{final}) = n(\text{calculated}) / (1 - n(\text{non-response})) = 168 / (1 - 0.1) = 186.67$$

The final sample size acquired for this study after rounding off was 187.

### 2.3. Sampling

While conducting the study, purposive sampling was used as the sampling method, which is a type of non-probability sampling. A purposive sample was selected based on the characteristics of the population and the objective of the study. The inclusion criteria were that the students must be a medical student (MBBS) of Manipal University College Malaysia from semesters 1 to 10 who voluntarily agreed to participate in the study and completed the questionnaire. The exclusion criteria included those who did not consent since participation was voluntary or failed to complete the questionnaire were excluded.

### 2.4. Data Collection

This questionnaire was distributed online through Google Forms to eligible undergraduate students from semesters 1 to 10 of MBBS students in Manipal University College Malaysia (MUCM). Students were informed that it would take approximately 5 to 10 minutes to complete this questionnaire. The participants consent was taken before they proceeded to answer the questionnaire. Students were ensured that all information provided will be strictly confidential and used purposefully for this research only. The independent variables consist of age (in years), gender, nationality, religion and practice of mindfulness whereas the dependent variable includes mindfulness and academic performance of medical students. The data was then collected using an online electronic survey consisting of close ended and scale-based questions.

The questionnaire consisted of three parts. The first part contained the demographic data (age, gender, batch, nationality, religion, current living status and practice of mindfulness). The second part is towards of mindfulness among medical students which included CAMS-R Mindfulness Assessment Tool. The reliability and validity of the CAMS-R was proven in a previous study [27] and it was found to be compatible with other inventories measuring mindfulness. The students were asked to respond to the CAMS-R Mindfulness Assessment Tool that consist a total of 12 close-ended question on a four-point Likert scale (Rarely/Not at all, Sometimes, Often and Almost always).

Items 2, 6, 7, were reverse scored. The scale contained items that evaluated attention, present focus and awareness and showed good internal reliability. [13] The third part of the questionnaire was on academic performance among medical students, the question was taken from an academic performance questionnaire from a previous study. [28] The original questionnaire consists of 38 questions; however, our study only consists of 26 close-ended questions. The questions were divided into 4 parts, questions 1-6 was used to evaluate motivation, questions 7-11 to evaluate learning skills, 12-19 for positive attitude, and 20-25 for study skills. The students were asked to respond to the questionnaire on a five-point Likert scale (Strongly agree, Agree, Uncertain, Disagree and Strongly disagree); depending on the personal extent to which they agreed on the concerned individual right. The questionnaires were then distributed among students by forwarding it as Google forms to students in MUCM from semester 1 up to semester 10, studying in both Muar and Malacca campus.

### 2.5. Data Processing and Data Analysis

The data collected from the distributed questionnaires was entered into Microsoft Excel. Data was then analyzed using Epi Info version 7.2.4.0 The independent variables used in this study were age (years), nationality, gender, religion and practice of mindfulness. The dependent variables used in this study was mindfulness and academic performance of medical students. The frequency and percentage of the independent variables which were age (years), nationality, gender and religion was calculated and was compared with the percentage of students who practice mindfulness activities. For the statements in CAMS-R Mindfulness Assessment Tool, each statement was scored using a four-point Likert scale (1- Rarely/Never, 2- Sometimes, 3- Often, 4- Almost always). Higher scores indicate higher mindfulness qualities whereas lower scores indicate lower mindfulness qualities. The academic performance scale had a few subscales that assessed motivation, learning skills, study skills and positive attitude. The statistical test used for hypothesis testing was determined by the independent and dependent variables used in the study as shown in Table 1. Level of significance was set at 0.05.

**Table 1.** Independent and dependent variable with statistical test.

Independent variable	Dependent variable	Statistical test
Age (Years)	Mindfulness	Unpaired T-test
Nationality	Mindfulness	Unpaired T-test
Gender	Mindfulness	Unpaired T-test
Religion	Mindfulness	ANOVA
Practice of mindfulness	Academic performance	Pearson correlation

### 2.6. Ethical Consideration

The research was approved by Research Ethics Committee,

Faculty of Medicine, Manipal University College Malaysia. The participants were informed that their participation in the study was completely voluntary and consent forms was provided prior to participating in the online survey, after

obtaining their consent they proceeded to answer the questionnaire. At the same time the participants were assured that the study was completely confidential and were encouraged to answer all the questions provided.

### 3. Results

**Table 2.** Demographic details of participants.

Variable		Frequency (n)	Percentage (%)
Age	≤22	138	71.5
	>22	55	28.5
	Mean (SD)	21.76 (1.57)	
	Min-Max	18-28	
Gender	Male	58	30.1
	Female	135	69.9
Phase	Pre-Clinical	59	30.6
	Clinical	134	69.4
Religion	Buddhism	57	29.5
	Christianity	24	12.4
	Hinduism	78	40.4
	Islam	26	13.4
	Sikhism	6	3.11
Nationality	N/A	2	1.04
	Malaysian	140	72.5
	Non-Malaysian	53	27.5
Level of Awareness of Mindfulness	Very Less Aware	9	4.66
	Less Aware	30	15.5
	Moderately Aware	96	49.7
	Well Aware	46	23.8
Type of Mindfulness Exercise Practiced	Very Well Aware	12	6.22
	Meditation	48	24.9
	Breathing Exercises	62	32.1
	Yoga	34	17.6
Influence of COVID 19 Pandemic on practicing Mindfulness activities	None	88	45.60
	Other	8	4.15
	Increased during the period	88	45.59
	Did not Increase during the period	105	54.40

Table 2 depicts the demographic details of our study. A total of 194 people responded to our 49-item questionnaire. Our final sample size was 193 after removing duplicated responses.

Among the respondents 138 (71.5%) were between age 22-25 and 55 were above 22 years, therefore the mean and SD of the age in our sample was 22 years. A majority of responses were noted to be female (69.9%) and 30.1% were Male. In the religion category, Majority 59 (29.5%) of respondents were Buddhists, followed by Christianity 24 (12.4%), Hinduism 78 (40.4%), Islam 26 (13.4%), and Sikhism 6 (3.4%). Large proportion of our participants were in the clinical years. (60.9%) We also observed that 72.5% of the respondents were Malaysian and 27.5% were non-Malaysian.

The second part of the table depicted the Level of awareness

among our participants about mindfulness. Whereby majority of participants were moderately aware 96 (49.7%). And 23.8% and 6.22% of our participants were well aware and very well aware respectively. As depicted from our results, when we analyzed the type of mindfulness activity practiced, a majority (45.60%) did not practice any mindfulness activity. Among the practices, most of them reported to be practicing breathing exercises (32.1%), followed by Meditation (24.9%), Yoga (17.6%) and other activities (4.15%) such as going for a run, listening to relaxing music and journaling. It was noted that 88 respondents (45.59%) reported of increased practice of mindfulness during the COVID-19 pandemic, and 105 (54.4%) did not report any increase in the practice during that period.

**Table 3.** Prior to the COVID-19 pandemic period, how often meditation/breathing exercises/yoga was being practiced.

Variables	Frequency (%)				
	Never	Rarely	Sometimes	Often	Always
Meditation	103 (53.4%)	40 (20.7%)	32 (16.6%)	14 (7.25%)	4 (2.07%)
Breathing exercises	79 (40.9%)	44 (22.8%)	43 (22.3%)	22 (11.4%)	5 (2.6%)
Yoga	117 (60.6%)	37 (19.2%)	28 (14.5%)	10 (5.2%)	1 (0.5%)
Other	124 (64.2%)	17 (8.8%)	24 (12.4%)	20 (10.4%)	8 (4.2%)

Table 3 tells us how the act of meditation / breathing / exercises / yoga were being practiced and how it was affected prior to the COVID 19 pandemic period among the undergraduate medical students of MUCM. Out of the 193 participants involved, 2.07% of the participants have been implemented meditation as their choice of practicing mindfulness, while 53.4% of the participants never had meditated during the COVID-19 pandemic period. As for

breathing exercises, there were 11.4% students who often made breathing exercises as a part of their daily routine, whereas there are still 40.9% of the students who never had breathing exercise prior to the pandemic. Yoga was measured up to 14.5% of the students who sometimes who did yoga in their free time. Majority of the students have often did breathing exercises more than other activities as a way of being mindfulness.

**Table 4.** Mindfulness (CAMS-R) and Academic performance.

Variable	Mean (SD)	Minimum - Maximum
Mindfulness (CAMS-R) (12-48)	31 (5.43)	15-46
Academic performance		
Study skills (5-30)	20.33 (4.121)	8-30
Learning skills (5-30)	23.1451 (3.45)	12-30
Motivation (5-30)	20.647 (3.08)	12-29
Positive attitude (5-40)	26.24 (3.76)	16-37

Table 4 shows that most of the medical students in Manipal University College Malaysia have moderate level of mindfulness as reported by CAMS-R questionnaire, with a mean score of 31 (SD= 5.43). Higher scores are associated with higher levels of mindfulness. When analyzing their academic

performance according to the 4 subscales, the respondents had a higher mean score of 26.24 (SD= 3.76) for positive attitude and a minimum and a maximum of 16 and 37 respectively, followed by learning skills 23.14 (SD= 3.45), study skills 20.33 (SD= 4.121), and motivation 20.64 (SD= 3.08).

**Table 5.** Factors associated with mindfulness.

Independent Variables	Mindfulness Mean (SD)	Mean difference (95% CI)	T value (DF=191)	P-value
Age				
<=22	31.38 (5.57)			
>22	30.04 (4.98)	1.35 (-0.35, 3.05)	1.56	0.120
Nationality				
Malaysian	30.66 (5.56)			
Non-Malaysian	31.87 (5.03)	-1.22 (-2.95, 0.50)	-1.40	0.164
Gender				
Female	30.83 (5.09)			
Male	31.40 (6.20)	-0.57 (-2.25, 1.12)	-0.66	0.508
Religion				
Buddhism	31.67 (4.72)			
Christianity	31.08 (4.84)			
Hinduism	31.21 (5.14)			
Islam	30.73 (6.60)		-	0.028
Sikhism	23.67 (6.89)			
None	28.5 (3.54)			
Practice of mindfulness exercises				
Yes	32.48 (5.29)			
No	29.24 (5.09)	-3.24 (-4.72, -1.76)	-4.31	0.001

Table 5 shows the association between age, nationality, gender, religion, the practice of mindfulness exercises and mindfulness.

Participants with ages <= 22 have a mean score of 31.38 (SD= 5.57), slightly higher than participants with ages >20 which is

30.04 (SD=4.98). The mean difference is 1.35 with 95% CI range of -0.35 to 3.05. The p-value is 0.120 which shows that there is no significant association between age and mindfulness.

Malaysians have a mean score of 30.66 (SD=5.56) while

non-Malaysians have a mean score of 31.87 (SD=5.03). The mean difference is -1.22 with 95% CI ranging from -2.95 to 0.50. The p-value is 0.164 showing that there is no significant association between nationality and mindfulness.

Buddhism has a mean score of 31.67 (SD=4.72), Christianity has a mean score of 31.08 (SD=4.84), Hinduism has a mean score of 31.21 (SD=5.14), Islam has a mean score of 30.73 (SD=6.60), Sikhism has a mean score of 23.67 (SD=6.89) and participants with no religion have a mean score of 28.5

(SD=3.54). The p-value is 0.028 which shows that there is significant association between religion and mindfulness.

Participants who do practice mindfulness exercises have a mean score of 32.48 (SD=5.29) and participants who do not practice mindfulness exercises have a mean score of 29.24 (SD=5.09). The mean difference is -3.24 and 95% CI ranges from -4.72 to 1.76. The p-value is 0.001 showing that there is significant association between the practice of mindfulness exercises and mindfulness.

**Table 6.** Correlation between variables (epi info 7.2.4).

Independent variable	Dependent variable	Correlation coefficient (r)	P value
Mindfulness- CAMS R	Motivation	0.64	0.01
Mindfulness- CAMS R	Learning skills	0.41	0.01
Mindfulness- CAMS R	Positive attitude	0.1	0.13
Mindfulness- CAMS R	Study skills	0.44	0.01
Mindfulness- CAMS R	Academic performance	0.38	0.01

Table 6 shows the correlation between the self-reported mindfulness using CAMS-R and the 4 subsets of academic performances which includes motivational skills, learning skills, positive attitudes and study skills. Based on EpiInfo (7.2.4) software, correlation coefficient (r) was obtained for the association between practice of mindfulness and motivation skills and it is statistically significant with positive moderate correlation. Association between practice mindfulness and learning skills as well as study skills shows statistically significant positive low correlation. There is statistically non-significant data which also shows very little correlation among the association between practice of mindfulness and positive attitude. Therefore, as one practice mindfulness, there is statistically proven for better performance in motivational skills, learning skill, and study skills excluding positive attitude. As a whole, the Mindfulness as reported by CAMS-R has significant low positive correlation with academic performance which shows us as mindfulness increases, the academic performance of the students of MUCM increases.

## 4. Discussion

Our study was conducted to understand the awareness about mindfulness and the practice of the same, while also trying to understand the factors that would contribute to it. We aimed to speculate the role of mindfulness in academic performance. Many previous research on this area has been focused on adults, but there is emphasis placed on understanding the role of mindfulness interventions among youth. [29] Majority of these studies have been brief mindfulness interventional programs and analyzing their outcomes on academic performance. [13] Therefore, it was evident from previous studies that the practice of mindfulness and its popularity as a frequent practice to enhance academic performance was still

in the experimental stages. There was a scarcity of cross-sectional studies that were carried out among medical students in this topic. [24] According to our study the majority of participants were moderately aware (49.7%) or well aware (23.8) about mindfulness. From our study many opted for Breathing exercises (32.1%), Meditation (24.9%) and Yoga (17.6%). A majority still did not report practicing any activity. From our findings and previous studies, Meditation, Yoga and Breathing exercises, were more popular and fell under the criteria as standard practices of Mindfulness. [10] About 8% reported practicing other activities such as Journaling, going for a run, and listening to relaxing music. In a systemic review on 18 studies that have Mindfulness based interventions with a college student population about perception of mindfulness it was evident that there is an overlap between stress reducing activities (journaling, going for a run) as well as standard MBI, but it was difficult to establish a "A size that fits all" when it comes to Mindfulness practices. [30] In a cross-sectional study where 299 undergraduate students were recruited from a psychology department participant pool at a large, South-eastern university in the USA Ninety-three (31.1%) students reported previous mindfulness meditation experience, with about half reporting practicing mindfulness meditation for at least a year (n = 45, 49.5%). [34]

Upon analyzing the trait mindfulness of the students, a fixed questionnaire which is CAMS-R was used. The mean score of participants was 31 indicating most of our participants obtained a moderate score. The association between being mindfulness with the academic performance, students who practices on being mindfulness showed higher mean than those students who doesn't practice mindfulness and depicted significant difference in majorly 4 domains, which are study skills, learning skills, motivation and positive attitudes. At the same time, students who practices on being mindfulness also proved to have higher SD than those who did not practiced

being mindful and also depicted significant difference in study skills, learning skills, motivation and positive attitudes. The minimum and maximum indicate that the students are moderately practicing mindfulness activities as a part of their daily routine.

This study has showed that there were no significant association between age, nationality, gender and mindfulness. However, there is significant association between religion and mindfulness. In our study it was seen that Buddhism has the highest mean value followed by Hinduism, Islam, participants with no religion and finally Sikhism. A cross-sectional study done on undergraduate students in the first semester of 4 faculties (Education, Management, Science and Civil Engineering), in University Technology Malaysia (UTM), Johor, Malaysia showed that overall, the level of mindfulness does not appear to be related to age, gender, race, religion, educational background, or familial situation. [31] But in our study there was significant association of religion and mindfulness. In a systemic study conducted to identify the role of religion for mindfulness-based Interventions, it has been found that spirituality and religious practices within different religions may have an impact on how people perceive mindfulness interventions. Whereby meditation practices had a direct association with Buddhism, the MBI (Mindfulness based interventions) had to be modified in other religions such as Islam and Christianity in order for them to be culturally acceptable. [32] In our study there is also significant association between the practice of mindfulness exercises and self-reported trait mindfulness. In a clinical sample of adults following MBRP for substance use found no significant relationships between type (formal vs. informal), frequency (days/week), and duration (minutes) of mindfulness practice on either the total or subscale scores of the Five Facet Mindfulness Questionnaire. [33] Although In a few previous studies, the relationship between trait mindfulness and state mindfulness was found to be incompatible. [34] It was observed that frequent mindfulness meditation practitioners become more aware of their debilities thus making it easier for them to interpret the items in the mindfulness scales. [2] In a cross-sectional study on individuals enrolled in the University of Massachusetts Medical School MBSR program in Worcester MA during 2006. It was shown increases in mindfulness were discovered to mediate the links between formal mindfulness practices and changes in psychological functioning, implying that mindfulness meditation practice leads to increased awareness, which leads to symptom reduction and enhanced well-being. [35]

According to our study, significant positive correlations were found between the domains, motivation, study skills and learning skills and trait mindfulness. When considering learning and study skills, previous studies have demonstrated

mindfulness reduces distractions and enhances attention, thereby increases self-regulation that aids studying. [24, 12] In a follow up study done on university students from University of London who were allocated to the mindfulness intervention group in RCT were interviewed, and it was found out that the intervention supported enjoyment of studying, and increased stamina and energy, increased awareness and improved memory and analytical thinking, but it also appeared that students reported that it reduced time spent studying [24]. A MBSR interventional study conducted among the university students in a private university in the USA the findings were consistent that mindfulness will reduce psychological distress thereby improve Academic performance. In a study conducted among the medical students in Monash University Malaysia, it was concluded that Mindfulness interventions as part of the core curriculum may help maintain mental health during a stressful period, simultaneously, show a relationship with improved studying and enhancing working memory. [19] On the other hand, some studies did not find a direct correlation between academic performance and mindfulness, but only evidence of increasing overall individual well-being, that may have an impact on academic success.

There were a few limitations in our study that should be acknowledged. We conducted a cross sectional study for 5 weeks duration which limited us from having adequate time to reach a greater number of participants. The questionnaires were distributed through online (Google form) to different batches. Therefore, we were unable to reach most MBBS students in MUCM individually. Consequently, the findings cannot be generalized to other settings due to the focus was on MBBS student alone in one of the medical colleges in Malaysia. There were not many participants from the final year students, since we conducted this study during final year exams. This might affect the results as final year students have a different perspective on the practice of mindfulness and academic performances. Confounders that have been found to independently affect Mindfulness and Academic performance such as stress, depression and anxiety [36] could not be considered due to limited resources and time.

Our study adds up to a vast number of studies that were conducted to identify any positive implications of mindfulness practices on academic performance. Most significantly, our study raises awareness among medical students of the possibility that a beneficial affect can be obtained while practicing mindfulness to improve overall well-being as well as academic performance. The findings of our study needs to be scrutinized by more substantial research and further expanded to be analyzed using Mindfulness based Interventions in the University setting, by participation of various students, and thereby establish its importance.

## 5. Conclusion

In conclusion, the level of mindfulness amongst the students in our college was found to be moderately aware (49.7%). We found that there was a significant association between religion and the practice of mindfulness exercises towards the level of mindfulness. Those who practice Buddhism with a mean of 31.67 and those who do practice mindfulness exercises with a mean of 32.48 have a higher level of mindfulness. We also found that there is a significant positive association between mindfulness and academic performance. Participants who are more mindful achieved better academic performance. To ensure a promising future ahead be it in academics or other aspects mindfulness plays an important role. Schools are encouraged to implement mindfulness building activities that can help improve the students to achieve a higher academic performance.

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