ORIGINAL ARTICLE

# Low Back Pain among Pre-clinical MBBS Students: An Inevitable Peril in the Age of Online Education

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## ABSTRACT

**Introduction:** Though low back pain (LBP), is a main cause for ill health and morbidity among all age groups, the prevalence of LBP among the younger age group especially university students is not uncommon. This can be attributed to many hours of sitting during class, faulty posture, sedentary lifestyle or a combination of all these factors more so during online learning and movement control during the pandemic. This study aims to investigate the correlation between long hours of sitting and LBP among pre-clinical medical students in a private university in Malaysia during online learning. **Methods:** Quantitative data was collected from 100 consenting, pre-clinical MBBS students from year 1 and year 2 who fulfilled the inclusion and exclusion criteria using a pre-tested, validated questionnaire. **Results:** A total of 30 male and 70 female participants responded to the survey. 71(71%) students reported LBP in the past six months with year 2 students reporting a higher incidence. Though the intensity was not severe, most of the students reported acute pain after prolonged sitting episodes. Gender and LBP showed no association in Pearson Chi Square test. The correlation between year of study and LBP was statistically significant at $X^2$=9.179, p=0.002. Point biserial correlation showed a strong, positive correlation between LBP and sitting duration, which was statistically significant ($r_{pb}$ =0.686, < 0.05). **Conclusion:** Pre-clinical MBBS students in the private university showed a high prevalence of LBP which correlated well with year of study and duration of sitting.
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**Keywords:** Low back pain, Pre-clinical MBBS students, Sitting posture, Online activity, Sedentary lifestyle

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## INTRODUCTION

Low back pain (LBP) is second to be reported after headache in the 21st century and also the fourth greatest cause of overall ill-health and its resultant socioeconomic burden (1,2). LBP is defined as perceived discomfort, muscle stiffness, or tension, which can be localized anywhere from below the costal margin to the level of inferior gluteal folds with or without sciatica (3). The definition also varies as an aching experience, stabbing, burning, sharp or dull pain at lower back which is present consistently for up to six weeks (4). The cause of LBP can be attributed to poor posture, heavy work involving repetitive movements, sedentary lifestyle causing muscle wasting and vibratory motion (5). Though many studies look into the prevalence of LBP among different age groups and occupations, currently the focus has shifted to the prevalence of LBP among students (5,6). A study conducted in Malaysia sheds light on the incidence of LBP among university students (7) which is also consistent with findings in a medical school in Turkey (8) and France (6). The possible causes of LBP among medical students were low fitness level, longer duration of sitting, advancing age, and senior years of study (9). 31% of university students, reported that they sit more than 9 hours in a day either in front of computers or during lecture sessions (9), reiterating that students tend to spend much of their learning time in sitting posture which could be a risk factor for LBP (10). The risk is more for medical and health sciences students, who are naturally prone to LBP due to their prolonged study hours and poor posture during those hours (5, 11-13). A latest study in Saudi Arabia revealed that individuals with longer hours of sitting during COVID-19 lockdown reported back pain (5). In Malaysia, movement control order was announced on March 18, 2020 with online education directives. In conjunction with that, this study aimed to determine

the correlation between long hours of sitting attributed to online learning and LBP among pre-clinical medical students in a private university in Malaysia in December 2020. Previous studies among medical students looked into the overall population of medical students across 5 years rather than as pre-clinical and clinical students though the causes of LBP among both the population differ (6, 13-15). Clinical students were excluded in this study as they harbored various predisposing factors that give rise to LBP such as prolonged standing posture during various teaching-learning activities including bed-side teaching, procedural skills teaching and ward rounds (6, 14, 15) focusing only on pre-clinical students.

## MATERIALS AND METHODS

A quantitative, cross-sectional survey was used to collect data from pre-clinical undergraduate students MBBS in Faculty of Medicine of a private medical university in Malaysia between December 2020 and March 2021. Consenting MBBS pre-clinical (year 1, n=128 & year 2, n= 120) students who fulfilled the inclusion and exclusion criteria were randomly selected for this study. The inclusion criterias were MBBS undergraduate pre-clinical students (Year 1 & Year 2) in University of Cyberjaya, Pre-clinical MBBS students who have suffered or suffering from new episode of acute LBP lasting for less than 6 weeks (16). The exclusion criterias were Pre-clinical MBBS students who have been diagnosed with underlying conditions such as intervertebral disc prolapse, pre-existing obstetrics and gynecological problems and spinal deformities (scoliosis, spondylolisthesis, spondylosis, and/or any neurological deficits) or students who refuse to provide informed consent.

The sample size was determined based on the formula (17)

$$(z^2 \times p\frac{1-p}{e^2}) \div (1 + (z^2 \times p(1-p) \div e^2 N)$$

N = population size
e = margin of error (decimal percentage form)
z = z score

For a population size of 500, expected margin error of 10% with 95% confidence interval (CI) the sample size was determined to be 81. Though the minimum recommendation was 81, it was decided to administer the questionnaire to all the students in year 1 and year 2 to account for missed data if any.

The Extended Nordic Musculoskeletal Questionnaire (NMQ-E) (18), which was adapted from the original Nordic Musculoskeletal Questionnaire was used to collect data for this study (19). The questionnaire ensured good reliability with mean proportion range between 0.92 for the prevalence of symptoms of 6 month-duration with the mean proportion of observed agreement (Po) between 0.92 for the prevalence of symptoms for 6 months and 0.99 for the questions on the effect of the symptoms on the students' work and attendance in schools (20). Similar results such as Po for low back symptoms at 0.95, Kappa 0.89 for the symptoms in the past 6 months and the influence of symptoms at 1.00 with the mean intra-class correlation coefficient (ICC) of 0.97 were reported as well (21).

Another outcome measure employed in this study was SIT-Q sedentary behavior questionnaire to identify the duration of sitting in various activities especially studying and working on computers (21). The instrument used for measurement consisted of 18 items that tracked the sedentary behavior in 6 domains, including 1) lying down posture for sleep and nap 2) eating, 3) travel, 4) work, study and community service, 5) child and adult care and 6) relaxation activities. SIT-Q is of good face validity as it was highly accepted by the respondents with moderate validity and fairly good ICC with the following values ICC = 0.65, 95% CI: 0.49, 0.78 (22).

Based on the above two validated questionnaires, the instrument for this study was constructed comprising of 3 sections. Section A was regarding the respondent demographic information, Section B comprised of questions about the intensity and history of LBP (10, 23) and Section C consisted of questions to identify the duration of sitting spent for various activities according to the SIT-Q sedentary behavior questionnaire (21). The authors obtained due permission to use these questionnaires from the respective owners. The ethical approval for the study was provided by the University Ethics Committee, approval No, UOC/CRERC/ER/258.

The modified questionnaire was subjected to pilot testing on 10 students to ensure language clarity among the target respondents. Following the piloting, data collection was done by administering the questionnaire through online forms. The cover letter attached to the questionnaire provided information on the purpose of the study, data dissemination, assurance of anonymity and the entitlement of the respondents to decline to respond. The respondents were encouraged to provide consent before answering the questionnaire as well. The data was then analysed using SPSS version 23.0.

## RESULTS

The survey yielded 112 responses. After removing 11 responses that indicated pre-existing back problems and one international participant, data from only 100 responses was analysed (Table I). Out of the 100 participants, 30% were in year 1 (N=30) and 70% were in year 2 (N=70) of MBBS study. The number of female participants (N=71) surpassed the number of male participants (N=29) in this study. Table II indicates the prevalence of LBP in the study sample. Half of year I students (N=15, 50%) and 80% of year 2 (N=

**Table I: Demographic data of participants (n=100)**

| | Year of study | | Overall |
|---|---|---|---|
| | 1 | 2 | |
| No. of participants | 30 | 70 | 100 |
| Gender | | | |
| Male | n= 11 (36.7%) | n= 18 (25.7%) | N= 29 (29%) |
| Female | n=19 (63.3%) | n=52 (74.3%) | N= 71 (71%) |

**Table II: Prevalence of LBP according to year of study and gender (n=100)**

| Year of study | Prevalence of LBP | | Total |
|---|---|---|---|
| | No (%) | Yes (%) | |
| Year 1 | 15 (50%) | 15(50%) | 30 |
| Year 2 | 14 (20%) | 56 (80%) | 70 |
| **Gender** | **Prevalence of LBP** | | **Total** |
| | **No (%)** | **Yes (%)** | |
| Male | 9 (31.0%) | 20 (69.0%) | 29 |
| Female | 20 (28.2%) | 51 (71.8%) | 71 |

56) reported LBP. Among the genders, 69% of male participants (N=20) and 71.8% of female participants (N=51) reported LBP.

Table III represents the data that is indicative of the severity of LBP among the participants. LBP severity was based on the intensity of pain, number of episodes, frequency of pain attacks and duration of every episode. The frequency of sick leave taken for LBP was 3% and medication was taken by 11% to alleviate LBP. The quality of life (QoL) (as represented by disability to carry out duties) was reported by 9% of participants and 4% sought medical treatment in the last 6 months. As for the number of episodes, a maximum of 22% of participants indicated acute LBP within the last week. Regarding the frequency of the attacks 4% indicate pain everyday whereas, 25% indicate pain 1-3 times per week. 49% of the participants had pain lasting less than a day and only 1% had pain longer than a week.

Table IV indicates the types of activities that are spent in sitting that could have predisposed to LBP. It is worthwhile to note that all participants have indicated that they have at least 30 mins of sitting time for lectures up to 94% indicating that they sit for 90 minutes or more for lectures. Similarly, sitting and studying is at least 90 minutes or more for 48% of participants. 64% of participants also denote longer duration for working on computers apart from online lectures. Sitting during transportation takes very little time for the participants probably due to the movement control order. Since most of the activities are computer-based, very few participants spent time sitting to watch television with 37% spending no time at all for that activity.

Table V represents the frequency of breaks taken in between sitting among the participants. Most of the participants take breaks only after an hour of sitting activity, more so in between lectures (85%) or study activities (51%) and work on computers (50%). Leisure activities such as transportation and television watching

**Table III: Intensity, episodes, frequency, and duration of LBP (n=100)**

| Intensity of LBP | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Have you ever had to take time off or sick leave from studies for low back trouble? | No | 68 | 68.0 | 68.0 | 97.0 |
| | Yes | 3 | 3.0 | 3.0 | 100.0 |
| Have you ever taken medication because of low back trouble? | No | 60 | 60.0 | 60.0 | 89.0 |
| | Yes | 11 | 11.0 | 11.0 | 100.0 |
| Have you been prevented from doing any works because of low back trouble during the last 6 months? | No | 62 | 62.0 | 62.0 | 91.0 |
| | Yes | 9 | 9.0 | 9.0 | 100.0 |
| Have you been seen by a health professional because of low back trouble during the last 6 months? | No | 67 | 67.0 | 67.0 | 96.0 |
| | Yes | 4 | 4.0 | 4.0 | 100.0 |
| **Episodes of LBP** | | | | | |
| I have LBP at the moment | | 18 | 18.0 | 18.0 | 47.0 |
| During the last week | | 22 | 22.0 | 22.0 | 69.0 |
| During the last month | | 15 | 15.0 | 15.0 | 84.0 |
| During the past 6 months | | 16 | 16.0 | 16.0 | 100.0 |
| **Frequency of LBP** | | | | | |
| Everyday | | 4 | 4.0 | 4.0 | 33.0 |
| 1-3 times per week | | 25 | 25.0 | 25.0 | 58.0 |
| Once every 2 weeks | | 15 | 15.0 | 15.0 | 73.0 |
| Once per month | | 11 | 11.0 | 11.0 | 84.0 |
| Once every 3-6 months | | 6 | 6.0 | 6.0 | 90.0 |
| Less than once in 6 months | | 10 | 10.0 | 10.0 | 100.0 |
| **Duration of LBP** | | | | | |
| A few hours to one day | | 49 | 49.0 | 49.0 | 78.0 |
| 2-3 days | | 14 | 14.0 | 14.0 | 92.0 |
| 4-5 days | | 3 | 3.0 | 3.0 | 95.0 |
| One week | | 4 | 4.0 | 4.0 | 99.0 |
| Longer than one week | | 1 | 1.0 | 1.0 | 100.0 |

**Table IV: Types of activities spent in sitting (n=100)**

| Activities | Duration | | | | | | Total |
|---|---|---|---|---|---|---|---|
| | None | < 30 min | 30 mins | 45 mins | 60 mins | 90 mins or more | |
| Lecture | 0 | 0 | 1 (1%) | 0 | 5 (5%) | 94 (94%) | 100 |
| Studying outside classroom hours | 2 (2%) | 10 (10%) | 14 (14%) | 10 (10%) | 16 (16%) | 48 (48%) | 100 |
| Work on computers | 0 | 2 (2%) | 5 (5%) | 8 (8%) | 21 (21%) | 64 (64%) | 100 |
| Transportation | 13 (13%) | 33 (33%) | 14 (14%) | 9 (9%) | 20 (20%) | 11 (11%) | 100 |
| Watch television | 37 (37%) | 19 (19%) | 12 (12%) | 9 (9%) | 14 (14%) | 9 (9%) | 100 |

**Table V: Frequency of break time taken in between sitting activities (n=100)**

| Activities | Duration | | | | | Total |
|---|---|---|---|---|---|---|
| | Every hour | < one hour | Every 30 mins | Every 10 mins | Every 5 mins | |
| Lecture | 85 (85%) | 9 (9%) | 4 (4%) | 2 (2%) | 0 | 100 |
| Studying outside classroom hours | 51 (51%) | 23 (23%) | 20 (20%) | 4 (4%) | 2 (2%) | 100 |
| Work on computers | 50 (50%) | 23 (23%) | 22 (22%) | 4 (4%) | 1 (1%) | 100 |
| Transportation | 28 (28%) | 23 (23%) | 28 (28%) | 16 (16%) | 5 (5%) | 100 |
| Watch television | 24 (24%) | 20 (20%) | 32 (32%) | 15 (15%) | 9 (9%) | 100 |

are more relaxing and participants take breaks more frequently as per their inclination. As for the open-ended question regarding the causes that triggered the onset of LBP only 9 out of 71 students related their initial onset of LBP due to prolong sitting activities, such as sitting while doing work on the laptop without rest, long sitting during lectures, prolonged driving more than 5 hours and sitting without break for more than 5 hours whereas 62.0% of them answered that they were unaware of the precipitating factors of LBP. As per the results, the students have spent an average time of 7.99±1.992 hours sitting per day in the past week, the breakdown of which is shown in table IV.

**Table VI: Chi-Square Test for association between gender and year of study and LBP (n=100)**

| | $X^2$ | *df* | $p^{\dagger}$ |
|---|---|---|---|
| Association between gender and LBP | .082 | 1 | .774 |
| Association between year of study and LBP | 9.179 | 1 | .002 |

*$^{\dagger}p<0.05$*

Pearson Chi-square test was done to determine the association between gender and LBP as well as year of study and LBP. Significance was considered if $p<0.05$ (Table VI). Though gender and LBP showed no association, the correlation between year of study and LBP was statistically significant at $X^2$ (1, N=100) = 9.179, p=0.002 with LBP more prevalent among year 2 students. Point biserial correlation was used to determine the correlation between LBP and duration of sitting (Table VII). The result showed statistically significant positive correlation between LBP and sitting duration (rpb =0.686, $p < 0.05$).

**Table VII: Point biserial correlation between LBP and duration of sitting (n=100)**

| | | Prevalence of LBP | Duration of sitting in minutes |
|---|---|---|---|
| **Prevalence of LBP** | Pearson Correlation | 1 | .686 |
| | Sig. (2-tailed) | | .000† |
| **Duration of sitting in minutes** | Pearson Correlation | .686 | 1 |
| | Sig. (2-tailed) | .000† | |

*†p<0.05*

## DISCUSSION

This study was set out to investigate the correlation between sitting posture and LBP among pre-clinical MBBS students in a private medical university in Malaysia in the COVID era. The assumption was that increased sitting duration due to online classes predisposed to LBP in otherwise normal students (8) for which participants with a history of underlying chronic conditions were excluded from this study. The students were questioned on their symptoms in the past 6 months, as this time line ensures good reliability as NMQ-E among the nursing students for 12-month symptoms had slightly lowered kappa reliability results (21) due to expected recall bias.

Among 100 pre-clinical MBBS students, 71% of them reported that they had LBP, which was significantly associated with the duration of sitting. This finding can be ascertained by several studies which were conducted by other researchers as well (7, 24, 25). In this study, the average duration of sitting spent by MBBS pre-clinical students for a day was 7.99±1.992 hours with a maximum of 12 hours and a minimum of 4 hours. Previous studies have identified that sitting for 3 or more hours correlates with higher incidence of LBP (7, 9, 15,

26). Among 94 students who spent at least 90 minutes sitting for their lecture, 68 of them (72.3%) reported LBP. A study among the Master of Physical Therapy students also identified that majority of the students spent their time sitting in the classroom for up to 8 hours a day and studying outside scheduled class hours at an average of 8 hours per day (26). Studies conducted in Malaysia (7) and Peshawar, Pakistan (15) identified four years of study and duration of sitting as the main risk of LBP. A study conducted among blue collar office workers identified higher prevalence of LBP as well attributed to long hours of sitting making it the main culprit (25).

75% of students who worked with computers in the seated position reported LBP in our study. Similarly, out of 48 students who studied outside the classroom for 90 minutes or more, 68.8% of them reported LBP (n=33). The results indicate that the incidence of LBP was related to prolonging sitting for study, irrespective of lectures, computer-related work, and studying outside the classroom hours. Studies have indicated that the incidence of LBP is more severe in the afternoon time of the day probably indicating prolonged sitting in the mornings (24). Longer sitting duration leads to pain or discomfort in the lumbosacral region, hips, gluteal region, or thighs perceived as LBP (24). It is worthwhile to mention that students with prolonged sitting with proper posture have lower complaints of LBP compared to students who adopt improper sitting posture. Improper sitting posture rises the pressure on intervertebral discs, which in turn causes discomfort in the lower back and be a threat to the integrity and normal function of the musculoskeletal structures (27).

In this study, the results indicate that there is no significant association between LBP and gender even though females had a higher incidence of LBP compared to males with the prevalence of 71.8%, a finding in tandem with a study conducted in Saudi Arabian and Malaysian adults (5, 9). Angiatt et al (2018) and Arsh and Jan (2016) also reported higher incidence of LBP among female students (7, 15) with a similar pattern noted in high school students in Dubai (14). This can be explained by the fact that males develop more muscle during puberty as the result of high amounts of testosterone and females develop more bone mass due to high estrogen levels, which makes females in the age group of 12 to 18 years prone to LBP (28). The results of our study indicate that higher the years of study, greater the risk of LBP (11). The reason for this could be due to increase in stress, anxiety and dissatisfaction as the year of study increases (29, 30). However, this is in contradiction to the study conducted by Angiatt et al (7) who reported higher prevalence of LBP among year 1 students. Interestingly, a study to estimate the prevalence and factors for LBP among teenagers in Kuwait identified a strong correlation between LBP and increase in school bag weight which induced a mechanical form of stress (31). However, this finding was contradicted in Malaysian pre-university students (32). It is noteworthy that psychosocial factors such as depression, anxiety and distress relate to the development of disability and pain as well (25, 28, 33).

The overall results indicate that students always sit hourly without a proper break in between the activities which can lead to the onset of LBP. Canadian university students who spent an average of 2.7 hours per day sitting during lectures also complained that lack of break time in between lectures was a foremost limitation as students are forced to sit in class (34). The forced sitting begets monotony and lack of time for recreational activities that ends up in musculoskeletal disorders (29). Researchers conclude that rest-pause is important for prolong sitting activities as it removes the workload from the stressed group of muscles and improves circulation to the otherwise deprived pressure points (35). Students are recommended to take a break every 30 minutes to decrease the strain on the back muscles. Stretch exercises such as forward, backward and side bending can be performed to increase the blood supply which in turn enhances fluid exchange in the intervertebral discs (35). 62.0% of the participants answered that they were unaware of the precipitating factors of LBP in our study which is quite contradicting with Turkey student where 86.2 % of students were aware of the cause that led to LBP (8). Sitting to work on computers without proper back support or positioning is one of the main factors that leads to spine malalignment and resultant quadriceps spasm culminating in LBP (36).

Though low back ache was common among a myriad of age groups and occupations, there are numerous studies that explore prevalence of LBP in students as well. A study in Korea among high school students indicate certain sitting postures and lack of lumbar strengthening exercises as the most important reasons that led to early onset of LBP in young adults (37). Adding on, a study from Turkey done on health sciences students indicates that prolonged sitting hours was the most important factor that led to LBP apart from student physical features, gender, desk, and smoking habits with females being more sensitive to pain (8). Falvigna et al (2011) reported higher incidence of LBP among physiotherapy students than medical students and the reason could be attributed to excessive physical activity (38) which could challenge the sitting hours causation of LBP (39). However, Yucel et al (2019) contradict this, as medical students suffered from LBP in their study and it could be attributed to sedentary lifestyle (8). This fact can be reiterated by a study conducted among Indian medical students that incidence of LBP was higher with poor study posture while sitting, poor physical activity, female gender, heavy back pack and family history of LBP (5, 29). Year 4 clinical students in Serbia reported higher prevalence of LBP (75.8%), more commonly in female students that affected their QoL due to the above causes as well as stress, more so during examinations (40).

Earlier LBP was common in clinical students due to prolonged standing during surgical procedure, bedside teaching and clerking, apart from regular responsibilities of outpatient and hospital rounds (41). Additionally, a study in Serbia has reported a link between LBP among cigarette smoking clinical medical students and strong family history of LBP (42) reiterated by Indian undergraduate medical students as well (29). A study among the students of physical therapy found that time spent more than 30 hours per month for clinical practice and treating patients had increased the incidence of LBP due to prolonged working in faulty positions, performing repetitive movements, manual handling activities, and transferal of high dependence patients and heavy equipment (15).

As for the body discomfort perceived due to prolonged sitting posture, researchers conclude that, forward leaning posture after one hour significantly increases LBP compared to sitting in upright and slumped posture (1). Among the sitting postures, the most disrupting is the siting with a forward lean rather than an upright posture as forward tilting shifts the centre of gravity in front of the ischial tuberosities thus significantly pressuring the back muscles (1). Prolonged muscle activation begets muscle tension which in turn leads to muscle strain. The muscle is then fatigued leading to soft tissue fatigue. When paraspinal, especially lumbar muscles are fatigued, the spine is devoid of its muscular support resulting in impaired motor co-ordination and control. The resultant mechanical stress is placed on the spinal ligaments and intervertebral discs, which is the type of injury seen in slumped sitting posture. This also explains the benefit of core stability exercises in the prevention and treatment of LBP (1, 43). Obesity is an additive factor known to compress the spinal structures leading to degeneration of lumbosacral structures and nerve compression (44). Obesity can have a negative impact on QoL leading to bone or joint dysfunction, musculoskeletal pain, and problem in motor performance (44).

The already demanding curriculum in medical schools have predisposed medical students to LBP (29). As an addition, the current Covid situation has placed people in strict quarantine mesuares that has lead further exacerbation of the condition (5). Psychological changes such as depression and anxiety, decreased exercise, unhealthy dietery habits, economic factors and poor ergonomic posture during on-sccreen activities (5) have increased manyfold during the pandemic. With the increased damage due to the above factors plus the reduced benefit of exercise such as abdominal muscle toning, physical activity and lumbar movement control, LBP prevalence among students could get much worse (5). The fear of uncertainty during the pandemic and loss of indulgence in hobbies leads to mental stress which could possibly alter the hypothalamic- pituitary-adrenal axis and in turn increases the flight or fright sympathetic response that alters muscle tone and function making the individual prone to injury as well (29).

The limitation in this study include recall bias which might have hindered the students in providing accurate data on the intricate details asked about LBP. Adding on, a survey is less likely to pin point the causes of LBP as it is cross-sectional. On the same note, confounding factors such as age of the participants, smoking and lifestyle tendencies which have been pointed out as causes of LBP (5, 8), were not considered in this study as the current focus is only hours of sitting which have been exacerbated in the wake of movement control. Alternatively, it is recommended to consider long term studies including a myriad of factors on students progressing from first to final years to be able to identify the causes and effects of LBP effectively. As a scope for future studies, it can be suggested that the researchers could perform intervention to alleviate forced sitting during classes for students and investigate the effect of such interventions. The psychosocial cause of pain should also be explored among this study sample. Adding on, educational programs and exercise regimens for students can be introduced and study their effects.

## CONCLUSION

As a conclusion, it can be said that the overall prevalence of LBP among the MBBS pre-clinical students in the private medical university was high and it significantly correlated with the duration of sitting as well as year of study duirng online eductional activities. The data also reveals that the average duration of sitting per day was high, in which most of the students study and work on computers for more than 1 hour without a break in between the activities. Though these findings were found in other studies, the factors that predispose to LBP have been amplified due to restricted movement during COVID-19. The results obtained from this study helps us guide students to suggest preventive measures against LBP, urges better lifestyle and takes the psychosocial wellbeing of students serioulsy into account to overcome this peril.

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