Health Education and Physical Exercise as a Means to Reduce Fatigue Level and Stress For Academician in the International Islamic University Malaysia


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Abstract. College students are population that is prone to health problems. They have high frequency of learning activities, but they rarely add the activities with exercise affecting on the emergence of fatigue and stress. Based on the results of a survey on fatigue and stress levels of students at IIUM, it was found that 30% of them felt mild fatigue and 70% felt moderate fatigue. For stress levels, it is obtained that 40% of the students experienced moderate stress, and 30% experienced mild stress. This condition is not realized and if it continues, it will reduce the health status of the IIUM campus residents. So, efforts are needed to improve their health status. Community service activities have been carried out are by providing health education about the impact of work on fatigue and stress, followed by the practice of light physical exercise. The goals set include increasing knowledge about work stress and fatigue, reducing fatigue levels and reducing stress levels for IIUM campus residents. The participants who attended were 36 people. The results of the pre-test and post-test for knowledge about fatigue and stress was that almost all participants experienced a significant increase. The average value of the pre-test and post-test for the level of fatigue was 47.77, increasing to 94.72. For knowledge about stress, the average pre-test and post-test scores were 49.72 to 96.11. This community service shows that in the implementation of formal education in the classroom, having a risk of causing serious health problems, so that students and other campus residents are given informal educational content in the form of casual activities outside the classroom.

1 Introduction

Fatigue is something that is experienced by everyone and is inherent in everyone's life in a certain form, in different levels of light weight and in the short and long term which is not the same for everyone. No one can avoid fatigue. Fatigue is a physiological phenomenon, that is a process in which a state of decreased tolerance for physical work causes fatigue (Language Development and Development Agency, Ministry of Education, Culture, Research and TRI (2016). The causes of fatigue are very specific depending on work characteristics such as excessive activity, lack of rest, weak physical condition, exercise and

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daily pressure. Fatigue is divided into two types, namely mental fatigue and physical fatigue. Mental fatigue is fatigue which is the result of mental work such as boredom due to lack of interest. Meanwhile, physical fatigue caused by physical work or muscle work (Williamson, 2018)

Apart from workers, several other professions that also have a lot of working time are students. Students are a group of individuals who are studying. Students are expected to get lessons and experiences that can add to their knowledge. In order to achieve this, the teachers arrange related and useful material to be taught to their students and then give assignments and exams to support the achievement of the expected learning objectives (Ramli, et al. 2022).

Apart from indoor learning, students are also faced with committee and organizational activities (Inegbedion, et al., 2020). This requires students to use more time and energy. Repetitive behavior that students carry out every day can lead to fatigue in them. Evidence suggests that most students experience some type of sleep quality disturbance that can affect their academic performance. Often, students are associated with environmental and academic pressures, and it can result in sleep disturbances and fatigue, which can affect their academic effectiveness (Sajadi, 2017). In a study, the condition of fatigue experienced by these students increases during a pandemic (Retno Nurwulan, 2021).

The success of the teaching and learning process can be observed from the success of students who take part in these lessons. The success itself can be seen from the level of understanding, mastery of the material and student learning outcomes. In general, tests are conducted to find out whether students have studied and have understood the material provided (Chayati, 2022). The higher the learning achievement of students, the higher the level of success in learning. The authors realize how important fatigue complaints are so that proper handling is needed and student performance can be improved. In Indonesia itself, the problem of fatigue is still considered trivial which actually has a big effect, so that it is supported by the description above, the authors want to show that mental fatigue, physical fatigue, and work fatigue affect student performance in the learning process.

Kulliyah of Nursing from IIUM (International Islamic University Malaysia) is a public university located in Kuantan Malaysia. In this odd semester, learning at IIUM has been carried out offline. The entire academic community, especially students, has started to study offline. Campus activities run fully from morning to evening, and most students, because they live in dormitories, often go back and forth to campus dormitories on foot.

The high frequency of learning activities, but rarely accompanied by exercise, is feared to cause fatigue in the indoor teaching and learning process. Based on the results of a fatigue and stress survey on campus residents, data was obtained for fatigue levels: 30% felt mild fatigue and 70% felt moderate fatigue. For stress levels, it is obtained that 40% experienced moderate stress, 30% experienced mild stress, and the rest indicated no stress.

This condition is not realized and if it continues continuously it will reduce the health status of the IIUM campus residents. In addition, when students and employees take part in committee and organizational activities, it certainly increases the workload. With a tight schedule of activities that students must follow, students do not have free time to exercise or exercise so that fatigue and stress will be easily experienced by students (Tasalim and Cahyani, 2021). So, efforts are needed to reduce the level of fatigue and improve the psychological atmosphere of the academic community in order to improve the health status of campus residents. The results of coordination with partners agreed that the community service activities that will be carried out include two stages, namely providing health education related to fatigue and stress due to workload, followed by phase two activities namely simulation and practice of physical exercise, in the form of body movements to relax muscles and stimulate relaxation brain (World Health Organization, 2020).
2 Methodology

The implementation of this activity uses 2 methods, namely:

1. The activity begins with the lecture method to provide health education to students about the dangers of fatigue and the importance of exercise. Activities are designed to increase interaction between speakers and participants. At the end of the activity a question and answer session will be opened.

2. The activity is then continued with physical exercise practices to reduce fatigue and lighten the mood by using up-beat music typical of Indonesia so that participants know how to do simple exercises. To increase the enthusiasm of the participants, a unique Indonesian door prize will be drawn to be given to the lucky participants.

Before and after the activity, a pre-test and post-test were carried out to evaluate the success of the activities carried out. Participation of partners in this activity includes the provision of infrastructure such as activity venues, lighting and coordinating the attendance of activity participants. Partners also coordinate with institutional leaders regarding licensing and security during activities. Sustainability of activities in the field is carried out by evaluating the use of training tools that have been donated to partners, how often these tools are used as well as qualitative evaluations from users regarding satisfaction, fatigue and stress experienced after repeating exemplary exercises.

3 Results and Discussion

This international community service activity was carried out at the Kulliyyah of Nursing (KON) IIUM campus complex. The activity was planned to start at 14.00 Malaysian Time, but due to weather considerations and coordination with KON IIUM, this international community service activity started earlier, namely at 08.00 Malaysian Time. The activity begins with registering participants by scanning the Google form QR code that has been provided by the committee. It was recorded on the Google form that 36 participants registered and took part in a series of activities from the beginning to the end of the event. The 36 participants were third semester nursing students. Several lecturers were also present in this activity.

After all participants have registered, participants are directed to enter the classroom which will be used as a place for material presentation by the resource persons. The room is located on the 1st floor adjacent to the auditorium, the room has a capacity of 40 seats. After all participants entered the room, participants were given a Google Form link by scanning a QR code to work on pre-test questions. The time allotted for work is 20 minutes.

The activity was continued with an opening ceremony from both UMY and IIUM. In his remarks, IIUM expressed gratitude for the efforts of community service activities carried out, hopefully activities like this can provide understanding to KON students regarding fatigue and stress management. The event then continued with the handover of electric and manual massage tools to KON IIUM. By handing over electric and manual massage tools, it is hoped that KON students can use them as an effort to reduce fatigue and stress.

The next event was the presentation of fatigue and stress management material (Figure 1) which was delivered for 20 minutes, followed by a question and answer session. The speaker conveyed several main points about fatigue and stress management, including the definition of fatigue and stress, signs of symptoms of fatigue and stress, causes of fatigue and stress, and how to manage fatigue and stress. In addition to the enthusiastic participants in listening to the presentation of the material, the participants were also enthusiastic when
the question and answer session opened and sharing experiences related to fatigue and stress management. The theory session ended with all participants working on post test questions.

The results of the pre-test and post-test for knowledge about fatigue and stress, almost all participants experienced a significant increase (Figure 2) seen from the very high difference between the pre-test scores and post-test scores. The average value of the pre-test and post-test for the level of fatigue was 47.77, increasing to 94.72. For knowledge about stress, the average pre-test and post-test scores were 49.72 to 96.11. This result is also in line with the results of other community services, which prove that educational activities can increase participants' knowledge, but are not necessarily in line with aspects of attitude (Febriani, et al. 2023).

The next activity is physical exercise to reduce fatigue and stress. The exercise was carried out in the back parking lot, behind the KON auditorium to be exact. All the academic community participated in the exercise with enthusiasm. Exercise is carried out for 15 minutes. The exercise uses a cheerful background song to trigger a fun atmosphere. The songs used in the exercise were Indonesian songs in local languages, namely the songs Maumere and Ojo Dibanding-bandingke (Figure 3). Gymnastics has been proven to be an effort to reduce stress that occurs in academics (Tasalim and Cahyani, 2021).
Figure 3. Implementation of exercise exercises to reduce fatigue and stress

After the exercise was finished, the participants returned to the classroom to take a break to drink and eat the snacks provided by the committee. While enjoying a snack, the committee asked one of the participants to convey their impressions of the exercise. Participants said they were very happy, felt without the burden of studying, and could laugh freely with friends and mingle with lecturers. Participants hope that activities like this are routinely carried out.

Overall this activity ran smoothly and successfully. Slight problems occurred in the audio sound system equipment that will be used to play exercise gymnastic music. The obstacle is that one of the cables does not work so that music cannot be played at a loud volume.

However, with fast coordination with the Kulliyyah of Nursing IIUM, the problem was soon resolved. This resulted in the implementation of the exercise slightly delayed by around 5-10 minutes. This incident occurred because the committee during the dress rehearsal the previous day, did not check the function of the audio sound system because it was still being used for other events.

4 Conclusions

International community service activities in collaboration with IIUM have been carried out successfully and smoothly. All parties involved feel happy, enthusiastic. The results of the evaluation of the value score show an increase in knowledge of both the fatigue and stress components. It is hoped that the goods grants submitted to IIUM can be used optimally to reduce fatigue and stress levels for the Kuliyyah of Nursing IIUM academic community. The activities are expected to continue to be carried out on an ongoing basis.

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