

# Exercising During a Pandemic:

## The Mental Health and Wellbeing Benefits of Exercise for Medical Students and Newly Qualified Doctors During the COVID-19 Pandemic

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### Introduction:

Medical students and newly qualified doctors have been uniquely affected by the COVID-19 pandemic facing significant challenges and uncertainty surrounding their education, future careers and wider life. (1,2,3)

We aimed to identify activities medical students and newly qualified doctors found beneficial for their mental wellbeing and mood, during the COVID-19 pandemic.

We hypothesised exercise to be the most common activity of survey respondents. We also hypothesised that survey respondents who exercised would report higher mood scores.

### Methods:

A survey was carried out, receiving 2075 responses from across the United Kingdom. 1909 medical students (92.0%) and 166 newly qualified doctors (0.08%).

Participants were asked what activities they found beneficial for their wellbeing and mental health and to provide a numerical score of their mood (0 being the worst and 100 being the best mood they could be in).

International Business Machines Statistical Package for the Social Sciences 25 (IBM SPSS) was used for the analysis of results.

### Results:

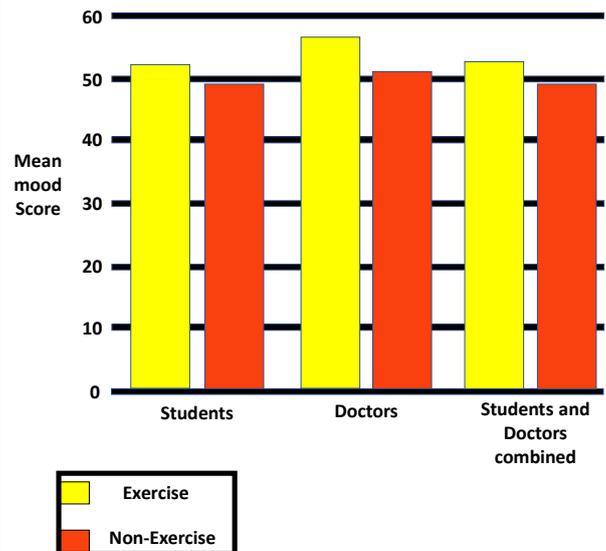
80.1% of respondents reported exercising (medical students 83.7%; newly qualified doctors 72.3%). The mean mood score of all respondents was 51.8, (Standard deviation) (21.1).

Participants who exercised had a mean mood score of 52.3 (20.7), significantly higher ( $P$ -value = 0.048) than those who did not, 49.8 (21.1).

One-way analysis of variance revealed a statistically significant difference ( $P$ -value = 0.037) between the mean mood scores of the following groups: students who did not exercise 49.7 (21.2), students who exercised 52.0 (21.0), doctors who exercised 56.2 (22.7) and doctors who did not exercise 50.9 (19.1).

Scheffe's post-hoc analysis revealed the statistically significant difference mentioned above was a result of the mean difference between students who did not exercise compared to doctors who exercised, who scored on average 6.5 points lower on mean mood scores.

Figure 1: Impact of Exercise on the Mean Mood Scores of Participants



### Discussion

Respondents who stated they had used exercise to help with their mental wellbeing had (on average) a higher mood score than those who did not. This can be seen in both the medical student and interim foundation doctor subgroups.

These results further demonstrate the benefits of physical activity upon wellbeing and provide a promising insight into the measures taken by medical students and interim foundation doctors in the UK, to help their mental wellbeing.

Physical activity provides a means to manage negative emotions, positively impacting an individual's mental health and wellbeing. (4,5)

### Conclusion:

Medical students and newly qualified doctors who engage in exercise, stand to gain for physical health as well as mental wellbeing benefits

It is also hoped that higher education providers and employers promote the importance of exercise for the wellbeing of their students and staff.

### References:

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