https://doi.org/10.22364/htqe.2022.78

# SUSTAINABILITY OF EQUESTRIAN PHYSICAL ACTIVITIES DURING COVID-19 PANDEMIC

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#### ABSTRACT

Covid-19 and restrictions intended to curb the pandemic have affected all areas of human life, but in particular physical activities and exercise habits. Reduction in the time devoted to physical activities have been reported in all demographic groups in various countries, leading to both physical (excessive weight, deterioration of posture, decreased eyesight, increased blood pressure, etc.) and psychological problems (depressive mood). Equestrians were less susceptible to certain restrictions because they could exercise outdoors and individually. Also, horse owners are more likely to regularly spend time with their equine sporting partners. It remains to be determined if and to what extent the pandemic has affected the physical activities of equestrians and whether equestrian physical activities provide a sustainable source of exercise during Covid-19 pandemic. In order to determine this, empirical evidence was collected using a questionnaire that was distributed among the multinational base population of equestrians. The working hypothesis is that patterns of physical activity while working with horses and taking care of the animals had to be adjusted due to restrictions, but overall equestrian activities were sustained and, in some cases, might have even increased. At the same time, the nature of activities is more likely to have been changed: for instance, privileging individual outdoor trainings over group indoor ones and non-competitive recreational riding over competitive activities.

**Keywords:** competitive; Covid-19; equestrian; physical activity; recreational; sport activities; sustainability

## Introduction

Covid-19 has affected all areas of human activity, including physical activity and exercise. Various studies have reported reduction in sport participation and physical exercise among different age groups, a tendency occasionally associated with the increase in occurrence of depressive moods, deterioration of emotional well-being, as well as some indulgence in unhealthy habits, such as overeating, augmented use of alcohol and smoking (Kravalis et al., 2021b; Baranauskas et al., 2022). Indeed, the excessive use of social media and lack of physical activity, coupled with social isolation

have long been known as a risk factor for alcoholism (Boyle et al., 2016; Peltiera et al., 2019), and this is especially the case during Covid-19 (Cerezo et al., 2021; Vogel et al., 2022). Additionally, Pever et al. (2022) found that females and people with low levels of physical activity are more likely to need psychological intervention than those with higher levels of physical activity. No study to date has looked at the changes in the exercise patterns of people involved in equestrian sports, yet this group of people may show a different pattern than other for a variety of reasons, including the fact that equestrian trainings are often conducted outdoors and are either individual or in small groups of people, and thus less likely to be subject to restrictions designed to curb the spread of the disease. This development can be compared to the situation in other outdoor recreational activities, where the period of 2020-2021 saw an increase of attendance (Kravalis et al., 2021a). Moreover, they would be already committed to this sport and would also possibly be horse owners and thus more likely to do physical exercise not only for themselves but also in order to take care of their equines. Also, horses and horse riding are reputed to have a therapeutic effect and to facilitate mental, psychological and social well-being, as seen from a variety of initiatives that are grouped under the umbrella terms "horse therapy" and "riding therapy" (Ropa & Malahova, 2021).

This study looks at the physical activities among one cross-section of society, the equestrians, worldwide, considering changes in their physical exercise and their reported emotional well-being. The aim of the study is to determine if the amount of physical exercise among equestrians has changed. The study also looks at other aspects of the equestrians' lifestyle, including the varieties of physical exercise they undertake, changes in their reported emotional well-being and the equestrian activities that they do. The working hypothesis proposed by this study is that there would have been little or no reduction in the amount of physical activities among experienced equestrians. It remains to see if there is any correlation between the amount and stability of physical exercise and the equestrians' emotional well-being, which can be manifested in the frequency of depressive moods as compared to the period before Covid-19 pandemic.

## Methodology

The study combines quantitative and qualitative methods of research. The quantitative study was conducted using an anonymous survey disseminated among equestrians. This survey was distributed using dedicated social media, namely Facebook groups dedicated to equine and equestrian history and animal studies. The survey included multiple choice questions and three questions with Likert scale 1–7 to determine the change in the amount of physical activity and reported well-being, with 1 being "considerably less," 4 – "as much as before," and 7 – "considerably more". The data gained in the survey was analyzed using inbuilt Google Forms software and Excel 2016. The qualitative research was conducted by analyzing the comments made by the respondents to the survey and the comments made on social media where the survey was distributed.

## Results

The survey was distributed in February 2022 among an international population of equestrians, and 44 answers were received in the course of the survey. The survey was disseminated using social media, namely English-language Facebook groups for the discussion of equestrian sport science and the history of equestrian sports, with international membership of scientists, students and equestrians interested in sports theory and history (Horse History in the Middle Ages and Beyond, https://www.facebook.com/groups/1890027421082745; Equine History Collective, https://www.facebook.com/groups/1656974127953630; Groupe Cheval et Sciences Humaines, https://www.facebook.com/groups/2107954459420660). The group members were invited to share the survey outside the groups. The survey was anonymous, and the respondents were informed about the rationale of the survey.

Further on, the survey shared on the social media generated some discussion, as equestrians shared their observations among equestrian activities in their geographic area and changes in their own equestrian lifestyles using the comment function. The comments were copied and saved for analysis, and were used with the authors' consent.

The majority of the respondents (39 out of 44) were female, and only 5 of the respondents were male, reflecting the fact that women participate in amateur and lower level professional equestrian sports more often than men (Ropa, 2019; Ropa & Shmakova, 2018). As to the ages, most of the respondents were senior riders aged over 50 (24), an outcome which may be due to the media through which the survey was distributed. 11 were in the age bracket of 40–49 years old, 7 in the previous age bracket 30–39 years old, and the 2 remaining respondents were aged 20–29. There were no respondents under 20 (see Fig. 1).

The next question targeted the length of the respondents' equestrian experience, i. e., how long they have been involved in equestrianism, riding or working with horses. It was found that all of the respondents were experienced equestrians with more than 5 years of experience in the sport. In order to determine the respondents' level of investment in the sport, it was also asked if they owned a horse or another equid.



Figure 1. Age of the respondents

Only 7 respondents owned no equids, while one quarter (11 respondents) owned a single equid, 6 owned two equids, and 20 respondents had 3 or more equids, which would entail serious investment in this activity, such as owning a stable, being involved in the operations of a stable or at least a considerable financial investment in keeping the animals (see Fig. 2).



Figure 2. Ownership of equids

The following questions were designed to determine the physical activities of the equestrians, changes in the amount of physical activity since the beginning of the pandemic, and changes in reported emotional well-being. Two questions concerned changes in the level of physical activity, both related to working with horses and not related to training with horses (e. g. , taking care of horses), during the pandemic, using a Likert scale of 1–7 (1 being "considerably less," and 7 being "considerably more"), with 4 indicating no change in the level of activity. In both questions designed to measure changes in physical activity 4 scored the highest number of responses (chosen by 20 respondents for training and by 27 respondents for other physical activities) (see Figs 3 and 4). Also, answering the question about riding and training, 3 respondents chose 1 (considerably less time devoted to the activity), 2 respondents chose 2 (less time) and 5 respondents chose 3 (slightly less time), whereas 7 respondents chose 5 (slightly more time), 3 respondents chose 6 (more time) and 4 respondents chose 7 (considerably more time). Thus, the percentage of people who could spend more time training was large than the percentage of equestrians spending less time training, whereas nearly half (20 respondents) spent as much time on training as before the pandemic. For other horse-related physical activities, one respondent chose 1 (much less time devoted to the activity), three respondents chose 2 (less time), and also one respondent chose 3 (slightly less time), whereas six respondents chose 5 (slightly more time), two respondents chose 6 (more time) and four respondents chose 7 (much more time). Thus, again, the number of equestrians spending more time on horse-related physical activities exceeded the number of equestrians that did less physical activities related to horses, albeit the majority (27 respondents) did not register any change in the time they spent on horse related physical activities.

How much time do you spend riding or doing non-riding work with horses as compared to the time before the pandemic? (4 - as much as before)



Figure 3. Changes in working with horses before and during the pandemic

How much time do you spend doing horse related physical activities that are not part of training (e.g., feeding, mucking out, etc.) as compared to ... time before the pandemic? (4 - as much as before) <sup>44</sup> atbildes



Figure 4. Changes in doing other physical activities before and during the pandemic

Concerning reported emotional well-being, the Likert scale of 1-7 was used again, where 1 represented feeling depressed or experiencing other negative emotions as compared to the time before the pandemic "much more often," 4 - "as often as before" and 7 - "much less often". Albeit 15 respondents selected 4, meaning no change, 9 and 8 respondents, respectively, selected 2 and 3 (feeling depressed more often and slightly more often, respectively), whereas 3, 6 and 2 respondents selected 5, 6 and 7, respectively, signaling increased emotional well-being. Only one respondent signaled feeling depressed considerably more often (see Fig. 5).



5

6

7

How often did you feel depressed or experience other negative emotions as compared to the time before the pandemic? (4 - as often as before) 44 atbildes

Figure 5. Changes in reported emotional well-being

3

2

1

Additionally, it was found that other sports and physical activities were regularly exercised by many, though not all of the equestrians completing the survey. Approximately one third, that is, 16 respondents, did not do other physical activities, whereas a compatible number of equestrians, 15, worked out both indoors and outdoors. Working out only outdoors was an option for 9 respondents, but the option of working out only indoors was the least popular, as it was selected by only 4 of the respondents (see Fig. 6).

Do you do sports or physical activities other than those related to horses? If yes, where? 44 atbildes



Figure 6. Presence of other physical activities

Further two questions targeted the disciplines and types of training done by the respondents as well as the reasons that prevented them from training more often.

It was possible to choose multiple options in answering the question about the equestrian work they did, as well as contribute their own answer, writing in "other" field. It was found that over half of the respondents (27 respondents) exercised for pleasure, non-competitively and/or worked from the ground (25 respondents), whereas half of the respondents (22) did dressage. Work from the ground is essential for all equestrian sports and can be done in combination with another event or on its own. Other popular responses included trail riding (15 respondents), mounted fighting (8 respondents), show jumping (7 respondents), eventing (4 respondents) and western riding (4 respondents), showing the heterogeneity in the equestrian population who completed the survey. Individual respondents also noted that they practiced endurance riding, mounted games, foxhunting, riding sidesaddle, etc. (see Fig. 7).

How would you describe the work you do with your horse? (check all that apply; please only write in the "other" field if none of the options can be approximated to your equestrian discipline) 44 atbildes



Figure 7. The equestrian disciplines and activities exercised by the respondents

The final question was about the factors that prevented the respondents from training more often, and, again, it was possible to choose from multiple options. Over half of the respondents (24) indicated "lack of time" as the reason, but adverse weather was the second most popular option, selected by 17 respondents. This is an important consideration, as not all riding facilities have a covered arena, and the use of a covered arena may have been restricted during Covid-19. However, the third most popular answer, chosen by 9 respondents, was "I ride as often as I want," signaling that the respondents saw no factors that prevented them from riding and were content with their training schedule, which may have contributed to their reported well-being. Further popular options included financial considerations (selected by 8 respondents), a problem which may have been intensified by Covid-19, as many people lost work or experienced reductions in salary. The options "Covid-related restrictions" and "Lack of access to the horse" scored an equal number of votes (selected by 5 respondents): both could influence the equestrians' exercise habits, but were not decisive factors (see Fig. 8).



Figure 8. Factors preventing respondents from training more often

The results of the survey were complimented by the qualitative analysis of comments made to the penultimate answer about the equestrian events and comments on the survey made on social media using the "Comment" function in the groups where the questionnaire was shared. The mini interviews were conducted at the same time when the survey was effected, in February 2022. The qualitative study reported no pronounced effects of restrictions on the equestrians' ability to train. Certain equestrians were able to spend more time with their horses because they did not have to travel to work and could do certain activities, e.g., participating in meetings, from the stable. Thus, one of the respondents wrote "I teach nit riding. Lessons have increased a lot." Another equestrians commenting on the survey noted: "Covid-19 has not affected me at all. I live on a farm. It's been great." This shows that Covid-19 related changes to lifestyle have not been always perceived as something negative; on the contrary, they enabled some equestrians to spend more time with their horses doing the physical work and training that they enjoy. Others, however, were

less lucky, due to changes in their financial situation, as one commenter indicated: "Canada had a pretty hard lockdown. Several of her clients [the clients of the commenter's relative, who ran a riding facility] had to sell their horses because they couldn't work and thus couldn't afford to keep them. And my sister was only allowed to have one client in the barn at a time." However, the respondent also noted that the change was positive for the riding instructor, who closed the facility but could concentrate on her own riding and became happier as a result.

#### Discussion

There was no clear correlation between stability in the amount of exercise and reported emotional well-being expressed in the frequency with which depressive moods occurred in respondents based on the survey. The results of the mini-interviews show some correlation, e.g., when a respondent was not affected and reported things as "being great" or when a decrease in professional activity resulted in increased training time for a respondent's relative ("I think she'd glad that she has retired and downsized! Now she actually gets to ride her own horses more!"). Thus, Baranauskas et al. note that increased physical activity can reduce the risk of depression by up to 45% (2022).

Still, the causes of depressive mood can have no relation to the amount of exercise: as one study shows, isolation, financial pressures and insecurities and other factors can cause depressive moods and other negative emotions, and physical exercise may not be enough to help (Baranauskas, 2022). Moreover, literature on the subject does not show clear and consistent correlation between self-reported physical activity and the occurrence of depressive symptoms in adult population (Demaray et al., 2022; Mushquash & Grassia, 2021). Similarly, the mini-interviews suggest that while some equestrians benefitted from flexible working hours, the possibility to work from home and avoid commuting to work and even an occasional opportunity to attend a virtual work meeting from the barn, others have suffered from the loss of work or a reduction in salary. Thus, it was reported that "several ... clients had to sell their horses because they couldn't work and thus couldn't afford to keep them." Inability to keep one's horse would have been a serious stress factor and could even lead to depression. Moreover, the same interviewee mentioned that her sister "was only allowed to have one client in the barn at a time," which would have caused stress to all parties, including the horse owners and riders, who would have to schedule the hours when they could train and see their horses. It would also make the experience of training a lonely one, not to mention the anxiety over overrunning one's allotted time or not being able to make it. This is one example of how Covid-related restrictions could have affected equestrians, including those who owned horses themselves.

Overall, the outcome of Covid-19 on the equestrian population worldwide are heterogenous and need further, more nuanced research. The general pattern, however, is that of a relatively sustainable and resilient community continuing and even increasing their physical activity and participation in sport. Their participation in sports and pattern of training and performing physical activities during Covid-19 is more sustained as compared to other populations studied in previous research, such as youths (Kravalis et al., 2021), students (Baranauskas et al., 2022; Mushquash & Grassia, 2021) and general population (Vogel et al., 2022).

## Conclusions

The research conducted as part of the study shows that equestrian and horse-related physical activities, which can be and often are conducted outdoors, remained relatively sustained among adult equestrians targeted by the study. The equestrians remained overall more resilient to changes in the circumstances and to Covid-19 related restrictions, as compared to other studies targeting different populations, referenced above. However, no clear correlation was detected between the occurrence of depressive moods and amount of physical activities. It is likely that other factors apart from physical exercise influenced the emotional reported well-being of the equestrians targeted by the study.

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