

# Equestrians' Experience of Restriction, Renunciation, and Worries during the Corona Disease

*Das Erleben von Einschränkungen, Verzicht und Sorgen bei Reitern während der Corona-Krise*

## Summary

- › **Problem:** The aim of the study was to investigate the experience of equestrians during the Corona disease, as they have not yet been the focus of research in this context.
- › **Methods:** Disease-related guidelines on riders were analyzed, considering the constructs of restrictions and renunciation as well as the experience of worries in the respective riding stables and in dealing with the horses. To this end, 813 equestrians from Germany and Austria in particular were questioned online.
- › **Result:** Horse owners experienced the requirements as more restrictive compared to riding participations; there were no differences in the experience of worries. People from riding stables where the disease-related requirements were adhered to experience the associated renunciation and restrictions more strongly compared to those from riding stables where the requirements were not adhered to. In stables with fewer horse boxes, people experienced the situation as less restrictive compared to stables with more boxes. Riders from Austria showed higher values for the constructs renunciation / restrictions and worries than German riders. Since the outbreak of the disease, equestrians stayed in the stables for a shorter time than before.
- › **Discussion:** Results show that the Corona disease affects equine athletes differently in different areas, with much more research needed on the broader effects – also including other sports.

## KEY WORDS:

Psychological Well-Being, Equestrian Sport, Mental Strength, Experience, Crisis

## Introduction

The new kind of coronavirus (COVID-19) and its consequences affect almost every country on the planet. With various restrictions, global governments tried to slow down the pace of infection as much as possible to maintain the efficiency of health systems. The virus is regarded as a collective stress test for the entire society, which has far-reaching economic and psychosocial consequences (13, 21).

## Zusammenfassung

- › **Problemstellung:** Ziel der Studie war es, das Erleben von Reitern während der Corona-Krise zu untersuchen, da sie in diesem Kontext bislang noch nicht im Fokus der Forschung standen.
- › **Methoden:** Es wurden die krisenbedingten Vorgaben auf Reiter analysiert, wobei die Konstrukte Einschränkungen und Verzicht sowie das Erleben der Sorgen in den jeweiligen Reitställen und im Umgang mit den Pferden betrachtet wurden. Hierfür wurden 813 Reiter insbesondere aus Deutschland und Österreich mittels eines Online-Fragebogens befragt.
- › **Ergebnisse:** Pferdebesitzer erlebten die Vorgaben als einschränkender im Vergleich zu Reitbeteiligungen; Unterschiede hinsichtlich des Erlebens von Sorgen gab es nicht. Personen aus Reitställen, in denen die Krisen bedingten Vorgaben eingehalten wurden, erlebten den damit einhergehenden Verzicht und die Einschränkungen stärker im Vergleich zu denjenigen aus Reitställen, in denen die Vorgaben nicht eingehalten wurden. In Reitställen mit weniger Pferdeboxen erlebten die Personen die Situation als weniger einschränkend im Vergleich zu Ställen mit mehr Boxen. Reiter aus Österreich wiesen höhere Werte bei den Konstrukten Verzicht / Einschränkungen und Sorgen auf als deutsche Reiter. Geschlechterunterschiede im Hinblick auf die Konstrukte lagen nicht vor. Die Befragten hielten sich seit während der Krise kürzer im Stall auf als zuvor.
- › **Diskussion:** Diese Ergebnisse zeigen, dass sich die Corona-Krise in verschiedenen Bereichen unterschiedlich stark auf Reitsportler auswirkt, wobei noch viel Forschungsbedarf zu den weiteren Auswirkungen – auch bei anderen Sportarten – besteht.

## SCHLÜSSELWÖRTER:

Psychisches Wohlbefinden, Reitsport, Mentale Stärke, Erleben, Krise

According to Mayer and colleagues (16), exposure to nature increases attachment to nature, the ability to pay attention, positive emotions and the ability to think about a life problem. It is assumed that people who own dogs or horses spent more time outdoors than most others, even during the disease. In Germany, 1.34 million people over the age of 14 years ride frequently and another 2.75 million persons >

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Table 1

Experience of restrictions/renunciations and worries among equestrians, subdivided into different groups. M = Mean, SD = Standard Deviation.

SUBDIVIDED INTO DIFFERENT GROUPS; G=GERMANY, A=AUSTRIA	RENUNCIATION / RESTRICTIONS		WORRIES	
	M	SD	M	SD
Female Equestrians	3.66	.76	3.52	1.11
Male Equestrians	3.75	.61	3.19	1.04
Horse Owners	3.68	.75	3.54	1.12
Riding Participations or alike	3.46	.83	3.32	1.06
Conformity (Regulations)	3.71	.74	3.55	1.10
No Conformity (Regulations)	3.24	.84	3.22	1.17
Equestrians (G)	3.65	.77	3.47	1.11
Equestrians (A)	3.86	.62	3.84	1.07
Competition Riders	3.99	.65	3.54	1.08
Leisure Riders	3.50	.76	3.57	1.09

ride from time to time in their leisure time. Of these, almost one million people (960,000) of the German-speaking population over 14 years of age personally own one or more horses (12). In addition, approx. 820,000 people from the age-related risk group (from 50 to 60 years) for serious corona disease (18) own a horse or several horses or live with a horse owner (12). These figures illustrate the enormous size of the group, which was affected by the restrictions that also exist at the riding stables.

But what effects can these restrictions have on the broad group of equestrians? This question is to be investigated in the present study. Humans and animals are companions living together in many different contexts (16). Animals in general and horses in particular can have a positive influence on the mental health of (older) people as they can alleviate signs of social isolation and boredom, reduce symptoms of social anxiety and increase e.g. emotional intelligence (1, 2, 8, 14, 19, 22).

Stress is regarded as a generic term for increased strain, regardless of whether stress-inducing stimuli (stressors) are harmful in themselves or not. Increased stress results from various forms of inadequate balance between internal or external requirements, i.e. those emanating from the individual or the environment, and the protective resources of the individual (3). It was examined that a strong personality disposition to neuroticism leads to a higher susceptibility to stress-related symptoms and that neuroticism is more pronounced in women than in men (4, 11), which can lead to a higher vulnerability of women to stressors.

In this study, the following hypotheses were derived, all of which relate to the circumstances during the corona disease. It was assumed that female equestrians feel more affected by restrictions and renunciation (H1a) and are more concerned about their horse than male equestrians (H1b). It was suggested that those who possess a horse of their own have a greater responsibility for it than those who ride a groomed horse or equestrian, and thus experience more worry (H2a), restrictions and renunciation (H2b). It was assumed that equestrians from riding stables following the guidelines of the equestrian association (e.g. visiting hours) experienced the situation as more restrictive than persons from riding stables where the guidelines were not observed (H3).

With regard to the number of horse boxes, in larger stables with more boxes and a correspondingly higher number of horses and associated persons on site, restrictions should be more noticeable (H4a), and equestrians should be more concerned than in smaller stables (H4b).

## Methods

### Sample

A total of N = 813 persons participated in the study consisting of 787 female (97%) and 26 male persons with an average age of M = 35.97 years (SD = 11.75). The majority of respondents came from Germany (n = 721, 89%), followed by persons from Austria (n = 68,8%), Switzerland (n = 17, 2%), Luxembourg (n = 3, < 1%), the Netherlands (n = 2, < 1%), Belgium and Italy (n = 1, < 1% each).

### Instrument

The questionnaire consisted of 38 items, which were constructed based on an expert survey, since there was no standardized questionnaire referring to equestrians in the corona disease. In addition to demographic questions, questions on riding experience and the riding stable (e.g., number of horse boxes) were included. Further questions related to the Corona disease (e.g., compliance with the guidelines of the equestrian association) and items concerning the three constructs renunciation / restrictions (e.g. "The Corona disease restricts me in my dealings with my horse"), worries (e.g. "I am currently more worried about my horse than usual") and positive thinking (e.g. "My horse is well looked after, even if I am not (no longer) allowed to go to him due to the disease"). Reliabilities for the three constructs had Cronbach's alpha values of  $\alpha = .51$  (positive thinking),  $\alpha = .64$  (renunciation / restrictions) and  $\alpha = .91$  (worries). Because of the unsatisfactory reliability value of the construct positive thinking, it was not included in the calculations. According to the specifications of the university, an ethical approval was not required.

### Procedure

The survey took place online via between March 22 and April 15, 2020. On March 16, the German government decided to close the sports facilities, whereupon information and recommendations were provided by the German Equestrian Federation (FN) (10). In Austria, too, curfews and partial exit restrictions were in effect during the survey period (21).

## Results

Univariate variance analysis and t-tests for independent samples and a t-test for dependent samples with Bonferroni spar correction were used. Descriptive results for the constructs renunciation / restrictions and concerns are presented

in Table 1. Female equestrians were not affected more by restrictions and renunciation than male riders (H1a;  $t(810) = -.58$ ,  $p > .05$ ), and they were not concerned more about their horse (H1b;  $t(810) = 1.49$ ,  $p > .05$ ). A highly significant result was only for the item that the equestrians are missing the equestrian competitions ( $t(796) = -4.52$ ,  $p < .0001$  Cohen's  $d = 2.38$ ); male respondents ( $M = 3.42$ ,  $SD = 1.64$ ) missed tournaments more than female respondents ( $M = 2.09$ ,  $SD = 1.41$ ). According to hypothesis 2, horse owners were affected more by the restrictions and the renunciation than riders who ride a groomed horse or a riding participation ( $t(786) = 2.23$ ,  $p = .039$ , Cohen's  $d = .28$ ). Due to hypothesis 3, those from stables following the guidelines of the equestrian association were observed experienced the situation as more restrictive than those from stables where the guidelines were not observed ( $t(803) = .07$ ,  $p < .000$ , Cohen's  $d = .59$ ). Perceived restrictions and renunciation were increasingly pronounced in people who rode in stables with a larger number of horse boxes, (H4a;  $F(6, 60) = 19.67$ ,  $p < .005$ ,  $\eta^2 = .13$ ; significant post-hoc tests) except in the category "over 100 boxes", where the mean value did not increase (see Table 2). Furthermore, equestrians who rode in a stable with a lower number of horse boxes were less concerned than those who rode in a stable with a higher number of horse boxes (H4b;  $F(6, 70) = 10.09$ ,  $p < .005$ ,  $\eta^2 = .07$ ). Again, there were significant post-hoc tests with increasing mean values for an increasing number of horse boxes, but the mean value of the category "over 100 boxes" did not rise evenly (see Table 2).

Furthermore, equestrians spend fewer hours per week in the stable since the corona disease ( $M = 9.71$  hours,  $SD = 9.82$ ) than before ( $M = 15.57$  hours,  $SD = 12.32$ ;  $t(812) = 19.27$ ,  $p < .007$ , Cohen's  $d = -.64$ ). Another exploratory analysis of possible differences between the countries was carried out, whereby only Germany and Austria were compared due to the highest number of participants. Here, significant differences were found in the construct worries ( $t(786) = -2.63$ ,  $p = .027$ , Cohen's  $d = .34$ ), with Austrian respondents being more concerned than German participants. German respondents continued to show lower levels of the construct renunciation / restriction than Austrian respondents ( $t(786) = -2.23$ ,  $p = .026$ , Cohen's  $d = .30$ ).

## Discussion

The ratio of the gender distribution of the sample reflects the gender distribution of the total population of equestrians, in which the female gender is significantly dominant. This is also evident in other studies (17, 19, 20, 24). In 2019, the proportion of women among equestrians aged 14 and over in Germany was 78% and 79% of the members of the German Equestrian Federation (FN) were female (9).

While the first two partial hypotheses on the sexes did not show any significant results, male equestrians lacked the equestrian competitions more than women. It was analyzed that men show a higher degree of assertiveness, which could explain the relevance of the tournaments from the men's point of view (15). From an international perspective, female equestrians tend to be represented in the lower performance classes of the tournaments, while riders predominate in some of the high-performance classes (9), where there is greater pressure.

Horse owners showed higher values of the construct renunciation / restriction than people who had a groomed horse or riding participation. Even though the guidelines of equestrian associations did not state that only horse owners are allowed to move their horses, owners have the greater responsibility for their horses. Owners and other people who took care of the horses were equally concerned. Due to Bowlby's theory of attachment (5, 6, 7),

Table 2

Experience of restrictions/renunciations and worries among equestrians according to the number of horse boxes. M = Mean, SD = Standard Deviation, n = subsample size \*\*  $p < .01$ , \*  $p < .05$ .

NUMBER OF BOXES	RENUNCIATION / RESTRICTIONS		WORRIES		n
	M	SD	M	SD	
0-10**/**	3.25	.79	3.12	1.10	224
11-20**/**	3.64	.71	3.39	1.10	114
21-30**/**	3.76	.70	3.50	1.17	122
31-40**/**	3.88	.72	3.85	1.02	100
41-50**/**	3.90	.60	3.81	1.04	105
51-100**/**	3.94	.66	3.82	.97	128
more than 100	3.58	.69	3.57	1.09	19

horses can serve as objects of attachment, including familiarity, the sensation of separation pain and skin contact, whether it is their own horse or a groomed or riding horse.

Equestrians who rode in stables following the guidelines of the equestrian association rated items of the construct renunciation / restriction higher than those from stables without guidelines. In riding stables without specifications of the respective country, persons possibly had to restrict themselves less with regard to the duration of presence in the stable and the number of persons permitted on site than persons from riding stables with specifications (10, 23).

Equestrians who were riding in a stable with a lower number of stalls experienced the situation as less restrictive compared to those who were riding in a stable with a higher number of stalls. Perceived restrictions and renunciation increased with the number of boxes in the stables, except for the category "over 100 boxes". Here, the small sample size of this category must be considered. Referring to the specifications of the respective equestrian associations (10, 23), it can be assumed that there were more restrictions in larger stables because the persons had less time to move the horse, for example due to the larger number of horses and thus persons, and they had to adhere even more precisely to time specifications.

At the time of the survey, there were differences between Germany and Austria in the consideration of the restrictions of different countries. Nationwide restrictions in Austria seemed to be stricter, since, for example, only five people were allowed to enter a riding establishment at any one time (10, 23). It must be critically noted that no standardized survey instrument was used since there were no standardized survey instruments available that would have referred to equestrians. Furthermore, the questionnaire was to be kept as short as possible in order to recruit as many people as possible to fill in the questionnaire completely. Moreover, comparatively few men took part in the study, but the overall proportion of male equestrians is significantly lower than that of female riders.

Further investigations could investigate how equestrians and other athletes from different countries deal with the loosening and how this affects other constructs (e.g., emotions, motivation). In addition, it would be useful to conduct longitudinal studies to identify possible changes. ■

## Conflict of Interest

*The authors have no conflict of interest.*

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