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Effects of COVID-19 Mandates on Student Engagement and Management of Collegiate Equestrian Teams

Travis Fortune

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**Effects of COVID-19 Mandates on Student Engagement and Management of
Collegiate Equestrian Teams**

A Thesis
Presented to
the Faculty of the Hutson School of Agriculture
Murray State University
Murray, Kentucky

In Partial Fulfillment
of the Requirements for the Degree
of Master of Science in Agriculture

Travis A. Fortune
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Abstract

Events like a global pandemic can negatively impact how organizations and groups function. From a collegiate perspective, this could include limiting or eliminating participation in co-curricular activities that have positive impacts on student experiences. Students use these events to make new friends, socialize and generate a sense of belonging, and gain interactions outside the classroom. In March 2020, several mandated restrictions were put into place in the United States in response to COVID-19, and collegiate equestrian teams' ability to practice and to show were negatively impacted. Even though some restrictions were beginning to ease as of Fall 2021, many universities and organizations still adhered to selected restrictions in classrooms and at athletic events. The objective of this study was to determine the effect of COVID-19 restrictions on collegiate equestrian team student engagement and morale. Two surveys were conducted, one from December 2020 to January 2021 (Phase 1), and the second from November to December 2021 (Phase 2). The surveys were developed in SurveyMonkey® and distributed to coaches for six collegiate equestrian organizations: Intercollegiate Horse Show Association, Intercollegiate Dressage Association, National Intercollegiate Rodeo Association, National Collegiate Equestrian Association, Intercollegiate Eventing, and Intercollegiate Polo. For Phase 1, the survey was open for seven weeks and collected 45 usable responses. For Phase 2, the survey was open for five weeks and collected 24 usable responses. Descriptive statistics were completed using Microsoft Excel, and Chi-Squared and Fisher's Exact tests were run using SPSS. In Phase 1, restrictions related to COVID-19 in 2020 resulted in changes to rules for team practices and shows in the Fall 2020 semester. Most common changes related to practices (n=33/45, 73.3%) included limiting the number of people in tack rooms to achieve social distancing (n=21/45, 46.7%) and the use of hand sanitizer (n=16/45, 35.6%) while tacking up. For teams that were able to show (n=23/44, 52.3%), the most common changes included health checks (n=5/45, 11.1%) and limitations on group travel (n=3/45, 6.7%). Most respondents (n=35/45, 77.8%) indicated that the team's morale was negatively impacted, this was particularly evident on incoming freshmen. Most respondents reported reductions in team interaction (n=23/45, 51.1%). Limitations on the size of gatherings and required social distancing, which limited time for interaction during practices and travel to events, is thought to be partly responsible for this reduction in student's morale. In Phase 2, the restrictions related to COVID-19 continued to impact students in 2021. During the Spring 2021 semester, 37.5% (n=9/24) of teams were able to practice but were unable to show. In contrast, all 26 responses (100%) indicated teams were able to do both in the Fall 2021 semester. The most common restrictions reported in phase 2, as in phase 1 included social distancing and the use of hand sanitizer. However, the incidence of each decreased. From

the Spring to the Fall 2021 semester, social distancing restrictions decreased from 79.2% (n=19/24) to 66.7% (n=16/24), and the use of hand sanitizer decreased from 70.8% (n=17/24) to 50% (n=12/24). While dedication improved (70.8%, n=17/24), attitude and limited socialization continued to negatively impact team morale.

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Chapter 1: Introduction

The structural-functional theory defines society as an interrelated structure designed to meet the social needs of individuals in society (Merton and Sztopka, 1996; Miller, 2019). Many things can impact how society functions. Some events can cause worldwide repercussions. Over a century ago, the 1918 influenza pandemic, also called the Spanish flu, swept across the globe. It was the largest global pandemic to date, infecting approximately 500 million people around the world and claiming 50-100 million lives (Johnson and Mueller, 2002; Trilla et al., 2008). A unique aspect of the Spanish flu pandemic was that it more severely affected the working-age population (Rao et al., 2018). The average age of patients affected was 30 years of age; which yielded a higher death rate for the working population. This altered the way society functioned, as the younger and older population had to start working to maintain the economy. In its extreme, it was speculated that this type of impact on a large segment of a country's population could have resulted in a group or society being incapable of recovery (Rao et al., 2018), showcasing how such events could change social functionality.

More recently, restrictions related to the COVID-19 global pandemic impacted how societies across the world functioned. Biosecurity measures including social distancing, mask and hand sanitizer use, isolation, and limitations on a business's ability to operate changed the way individuals and groups behaved. As a result of these changes, the number of mental and physical health cases increased (dos Santos, 2020; Hamza et al., 2021; Han et al., 2020). Anxiety and distress were the most prominent mental health

complaints, followed by post-traumatic stress (Hamza et al., 2021; Han et al., 2020).

These health issues were typically associated with social isolation.

Social support is important for mental health (Dean and Ensel, 1982), and many young people develop support networks when attending college. In particular, involvement in extracurricular activities helps keep students engaged, improve grade point averages, and develop friendships that can impact their lives and careers (Bakoban, 2015; Cavindar, 2012; Foreman, 2012; Montelongo, 2002). Extracurricular activities that students can engage in include: professional groups, athletic and social clubs. Collegiate equestrian programs (CEP) are a type of activity that often involve gathering at the local institution, and may require travel to other institutions for competition purposes. As of this publication, there were not any publications on the impact of COVID-19 on CEP.

The objectives of this study were to evaluate how COVID-19 restrictions affected 1) student morale and 2) equestrian team management in CEP. Data was collected across the United States in an attempt to determine whether different COVID-19 restrictions had a greater or lesser impact on the ability of CEP to continue operating throughout the fall of 2020 and spring of 2021. It was hypothesized that 1) student morale would be negatively impacted as a result of limitations on students' ability to participate in team practices and/or shows, and that 2) based on pandemic restrictions, the management of equestrian teams would be more difficult as it impacted the coaches' ability to schedule and conduct practices.

Two surveys were developed to collect data from coaches involved in collegiate equestrian teams across the United States. Phase one, conducted between the Fall 2020

and Spring 2021 semesters, evaluated reactions to the shutdown that occurred during the Spring 2020 semester and gathered data on activities during the Fall 2020 semester.

Phase two was conducted approximately one year later, during the Fall 2021 semester, and evaluated changes in student engagement and team management practices during the spring and Fall 2021 semesters.

As hypothesized, results showed that COVID-19 restrictions had a negative impact on both student engagement and management of equestrian teams in 2020 and 2021. Social interactions were lower among students as compared to before the pandemic. While the majority of CEP evaluated were able to continue operating, changes in management practices were required. One respondent indicated that the program was completely shut down as a result of the pandemic. Recruitment and retention during 2020 and 2021 were also noted to be more difficult, with some noting that students transferred from a school that was unable to compete to another school that was competing. This study documented the impact of various COVID-19 restrictions on student's engagement and equestrian team management. The information provided here could potentially be used to assist the development of reaction plans for similar events and possibly improve student engagement and ease management of student organizations.

Limitations to this study included a lack of participants response, and/or partial response to the survey. It was assumed that respondents would answer questions truthfully and accurately; and that they would be the best source of information for this survey.

Chapter 2: Literature Review

The structural-functional theory defines society as an interrelated structure designed to meet the social needs of individuals in society (Merton and Sztompka, 1996; Miller, 2019). Seumas Miller (2019) summarized social institutions as activities consisting of a complex of relatively stable patterns of behavior and beliefs that focus on meeting social needs, they include government, education, family, healthcare, religion, and the economy (Merton and Sztompka, 1996; Miller, 2019). Merton and Sztompka (1996) pointed out that social processes often have many functions. Manifest functions are the consequences of a social process that are sought or anticipated. Examples of this in college education include: gaining knowledge, preparing for a career, and finding a good job that utilizes that education. Latent functions are the unsought consequences of a social process. Latent functions of college years include meeting new people, participating in extracurricular activities, or even finding a spouse or partner (Miller, 2019).

More recently restrictions related to the COVID-19 global pandemic impacted how societies across the world functioned. Biosecurity measures including social distancing, mask and hand sanitizer use, isolation, and limitations on a business's ability to operate changed the way individuals and groups behaved. This resulted in increased numbers of physical and mental health problems (dos Santos, 2020; Hamza et al., 2021; Han et al., 2020). Anxiety and distress were the most prominent mental health complaints, followed by post-traumatic stress (Hamza et al., 2021; Han et al., 2020).

These problems were typically associated with social isolation. College students who found the campus homelike and welcoming experienced frustration and anxiety when colleges and universities shut down in 2020 (Zhai and Du, 2020). Students also reported strained student-institutional relationships and problems with isolation and difficulties in sustaining relationships (Vaterlaus et al., 2021).

Involvement in Collegiate Organizations

It has been reported that social support promotes both mental and physical well-being (Dean and Ensel, 1982). When in distress, people typically turn to family and friends for help (Barrera et al., 1981; Cohen et al., 1986). College students are often encouraged to get involved with academic clubs, organizations, and extracurricular activities (ECA). Organizations often have different intentions and can be social, professional, vocational, or philanthropic in design. Ultimately, involvement in ECA has been shown to have a positive impact on a student's leadership abilities and grade point average (GPA), and it prepares students to use knowledge in a real-world setting (Bakoban, 2015; Brooks, 2021; Cavinder et al., 2011; Montelongo, 2002). Involvement also promotes students' social and personal growth, which is a key factor in leadership ability (Brooks, 2021; Schuster et al., 2006). Students' participation in different organizations helps them to think critically, manage their time, and maintain competence in the classroom (Foreman, 2012; Schuster et al., 2006).

Additionally, students' involvement in ECA is appealing to employers as some organizations train students in highly desirable soft skills. For example, a member of a college livestock judging team may have training and experience that improves their ability to communicate, think critically, and manage information. These skills are honed

in the competitive environment that livestock judging team students participate in, and it allows students to learn how to manage and organize information while working toward a common goal with their team (Cavinder et al., 2011). Similar findings have been made regarding students on equestrian teams. A study from the University of Nebraska-Lincoln reported that students' involvement with the equestrian team had a positive influence on their ability to work with others and improved communication skills (Anderson and Karr-Lilienthal, 2011). Surveys have shown that students perceive ECA are correlated with other employability skills, such as communication, responsibility, teamwork, and relating to different people which are viewed to help build a resume (Milner et al., 2016; Anderson and Karr-Lilienthal, 2011).

Extracurricular activities are sometimes viewed as taking time away from the student's academic responsibilities. However, studies have shown that these activities have a positive impact on student persistence, interpersonal skills, and faculty interactions (Foreman, 2012). Additionally, a study conducted with 239 students suggested that students involved in ECA have higher GPAs than students not involved. (Bakoban et al., 2015). On the other hand, the socialization provided via involvement in Greek organizations has mixed impacts on students (Routon and Walker, 2014). Greek membership increased the likelihood of graduating on time, participation in school government, and beginning careers immediately after graduation. However, it can also be associated with lower grades in males (Routon and Walker, 2014).

Pandemic Impacts on Socialization and Interaction

Many things can impact how organizations and people in society function. Small events may have only local effects, but large events can impact the world. One classic example is the 1918 Spanish Flu, an influenza pandemic that swept across the globe. It infected approximately 500 million people around the world and claimed 50-100 million lives (Johnson and Mueller, 2002; Trilla et al., 2008). One particular aspect of this pandemic was that it more severely affected the working-age population (Rao et al., 2018). The average patient affected was 30 years of age, ranging from 18- to 40 years, and the severity of this illness resulted in a higher death rate in working age adults (Hayagreeva et al., 2017). This altered the way society functioned, as younger and older people had to start working to keep the economy going. Due to limited workers, it also allowed workers to demand better living and working conditions, public health care, and wages (Spinney, 2018). The scarcity in male labor force allowed for more women to begin working. In its extreme, it was speculated that this type of impact on a large segment of a country's population could have resulted in a group or society being incapable of recovery (Rao et al., 2018). Changes imposed by the Spanish flu pandemic altered social functionality especially in highly populated areas where it was easier to contract the disease. (Hayagreeva et al., 2017). Countermeasures during that time included, closure of public assembly places, churches, and schools, banning of public meetings, and encouragement of isolation and covering of mouth and nose (Franchini et al., 2020; Hayagreeva et al., 2017). People began to wear masks in an attempt to protect themselves from the disease. However, such practice was discontinued after the pandemic subsided (Burgess et al., 2012).

In 2019, the COVID-19 global pandemic began to impact how societies across the world functioned. There are many similarities between the Spanish flu and the COVID-19 pandemic: the contagious nature of the virus and the various changes, including social distancing and isolation that were imposed on a population's daily life to minimize the spread of the disease.

Considering that social relations and interactions are integral to human civilization, such measures severely impacted civilization. Experts predicted that there would be social suffering, including increased anxiety, loneliness, depression, and mental disorders due to isolation (Sher, 2020; Singh and Singh, 2020). On March 30, 2020, three-quarters of the American population were under stay-at-home orders due to government mandate (Lund et al., 2020). Unemployment claims increased significantly, shattering the highest rate previously recorded in 1982 (Lund et al., 2020). The isolation combined with economic uncertainty had a rapid impact on mental health (Sher, 2020). University students were also impacted by these changes (Birmingham et al., 2021). In the first weeks of the lockdown, mental well-being and physical activity decreased while stress and sedentary behavior increased in university students in the United Kingdom (Savage, 2020). Similar impacts on students were reported in Australia (Gallo et al., 2020), Switzerland (Elmer et al., 2020), China (Chen et al., 2020), and Indonesia (Pragholapati, 2020).

Colleges and universities in the United States closed their doors in March 2020 and sent students home, transitioning to online learning in most cases. When classes resumed in the Fall 2020 semester, several biosecurity measures were implemented to prevent the spread of COVID-19. These included teaching hybrid (in-person and online,

combined) classes, social distancing, isolation of symptomatic students or those who tested positive for COVID-19 and required mask-wearing (Losina et al., 2021). It was noted that, though students wanted to return to campus, there was hesitancy in following these biosecurity measurements (Birmingham et al., 2021).

During the COVID-19 pandemic, numerous college sports teams were terminated due to financial strain felt in the 2020-2021 school year. Within the National Collegiate Athletic Association (NCAA), 90 men's, 83 women's, and 3 co-ed sports were terminated. This causes long-term effects on the players, coaches, and support staff as players lose the sense of belonging when losing their team. Interestingly, student athletes who received more social support through social media or video/voice connections reported less dissolution of their athletic identity and better mental health and well-being (Graupensperger et al., 2020). Professionals involved, coaches and support staff, lost jobs and had to find alternate employment (Swanson, 2020). In addition to the financial constraints, these changes also had social consequences with individuals and families being uprooted and social networks being disrupted.

As of early 2022, the effects of COVID-19 pandemic were still being felt. Public Health Officials had not declared the pandemic to be over. However, there were signs suggesting the transition to an endemic disease including the immunity status of 70% of the global population via exposure to the virus or vaccination, a reduction in the number of related deaths, and a significant decrease in related ICU occupancy from winter 2020-2021 to winter 2021-2022 (Ioannidis, 2022). The World Health Organization called for a global effort to vaccinate at least 70% of the population of every country by mid-2022 as this would theoretically help end the acute phase of the pandemic, enabling countries to

fully reopen economically (Tangcharoensathien and Ghebreyesus, 2022). Even though the general medical and scientific consensus is that the vaccine was the best resource to control the pandemic lowering the rate of illness, there have been concerns related to the rapidity with which the COVID-19 vaccine was created. Many people are open to the idea of vaccination, but they want information or proof that the vaccine is safe. The public wants to make sure that safety was more of a priority than expediency (Fiske et al., 2022). Amongst college students in South Carolina, United States, the perceived severity of COVID-19 was positively associated with vaccine acceptance (Qiao et al., 2022). Students in non-medical fields refused a COVID-19 vaccine 22% of the time (Khubchandani et al., 2022), while those in the medical field refused the vaccine 18.9% of the time (Mustapha et al., 2021). A web-based survey showed that 95% of Italian university students were willing to be vaccinated (Pastorino et al., 2021), while only 53% of college students in New Jersey reported the same willingness (Kecojevic et al., 2021). Some universities in the United States required students who wanted to participate in face-to-face classes to be fully vaccinated as early as March 2021, and many more institutions initiated the requirement when the FDA approved the Pfizer-BioNTech vaccine in August 2021¹.

During the COVID-19 pandemic, numerous college sports teams were cut due to financial strain felt in the 2020-2021 school year. Within the NCAA, 90 men's, 83 women's, and 3 co-ed sports were eliminated. When this sort of action occurs, it can have long-term effects on the players, coaches, and support staff. The player has lost a team

¹ Writers, B. C. S. (2022, May 11). *What colleges require the COVID-19 vaccine?: BestColleges*. BestColleges.com. Retrieved May 24, 2022, from <https://www.bestcolleges.com/news/2021/10/11/list-of-colleges-that-require-covid-19-vaccine/>

that could have given them a sense of belonging. Interestingly, student-athletes who received more social support through social media or video/voice connections reported less dissolution of their athletic identity and better mental health and well-being (Graupensperger et al., 2020). On the staff side, coaches and support staff lost jobs and had to find alternate employment (Swanson, 2020). In addition to financial constraints, social ramifications from these issues included individuals and families being uprooted and social networks being disrupted.

The objectives of this study were to evaluate how COVID-19 affected student morale and equestrian team management in CEP. This included collecting data on participation levels from collegiate programs in different states and attempting to determine whether different COVID-19 protocols were more effective in allowing CEP to continue operating throughout the fall of 2020 and spring of 2021.

Chapter 3: Method

This project was reviewed and approved by the Murray State University Institutional Review Board (protocol #21-072).

Timeline

The study was conducted between October 2020 and December 2021. Phase 1 was conducted during the Fall 2020 semester and evaluated events in the Spring 2020 and Fall 2020, and expectations for Spring 2021 semester. Phase 2 was conducted during the Fall 2021 semester and evaluated events in the Spring and Fall 2021 semesters and expectations for the Spring 2022 semester.

Sample Selection

Participants were selected based on involvement with at least one collegiate equestrian team during the study period. Six associations were identified: Intercollegiate Horse Show Association (IHSA); Intercollegiate Dressage Association (ADA); National Collegiate Equestrian Association (NCEA); National Intercollegiate Rodeo Association (NIRA); United States Eventing Association (USEA); U.S. Polo Association (POLO). Contact information was obtained via the information on these associations' websites. When the contact was not available, a request for contacts was submitted to the association. One association, NIRA, released a list of contact information for coaches. Another association, IDA, forwarded a request for participation to their coaches. Finally, IHSA released a list of their regional representatives, who were then asked to forward a

request for participation in the survey to the coaches within their region. Three hundred and ten email contacts for coaches within the associations mentioned above were received.

Survey Instrument and Validation

A survey based on current events related to COVID-19 and equestrian teams in the United States was developed using Momentive™ (formerly SurveyMonkey®). In phase 1, the instrument consisted of a total of 28 questions separated into five sections as follows: General Program Questions (5 questions), Spring 2020 (5 questions), Fall 2020 (10 questions), Spring 2021 (2 questions), and General Impacts (6 questions) (Appendix B). The survey instrument was reviewed by three faculty members at Murray State University. A pilot test was then conducted with one coach from each of the six associations. Upon review of pilot responses, questions were edited for clarity and the survey was released to the 310 email contacts.

In phase 2, the instrument consisted of 32 questions separated into five sections as follows: General Program Questions (4 questions), Spring 2021 (8 questions), Fall 2021 (8 questions), Spring 2022 (3 questions), and General Impacts (9 questions) (Appendix C). The survey instrument was again reviewed by three faculty members at Murray State University before being released to the same 310 email contacts as in phase 1.

Survey Distribution

For each phase, an initial invitational email with a link to the survey was sent via Google Mail to the 310 email addresses acquired as described previously. The

Momentive™ web link was made available for 8 weeks. Reminder emails that included the survey link were sent to participants every 4 weeks.

Data Analysis

The data collected from Momentive™ was downloaded as a Microsoft Excel file. All responses were then reviewed and edited to a consistent format for data analysis; questions asking the respondent to enter a number were converted to Arabic numerals. Descriptive questions that asked for written responses were categorized. Descriptive statistics were conducted using Microsoft Excel 2013. The data was then entered into SPSS for analysis using Chi-square tests and Fisher's Exact test.

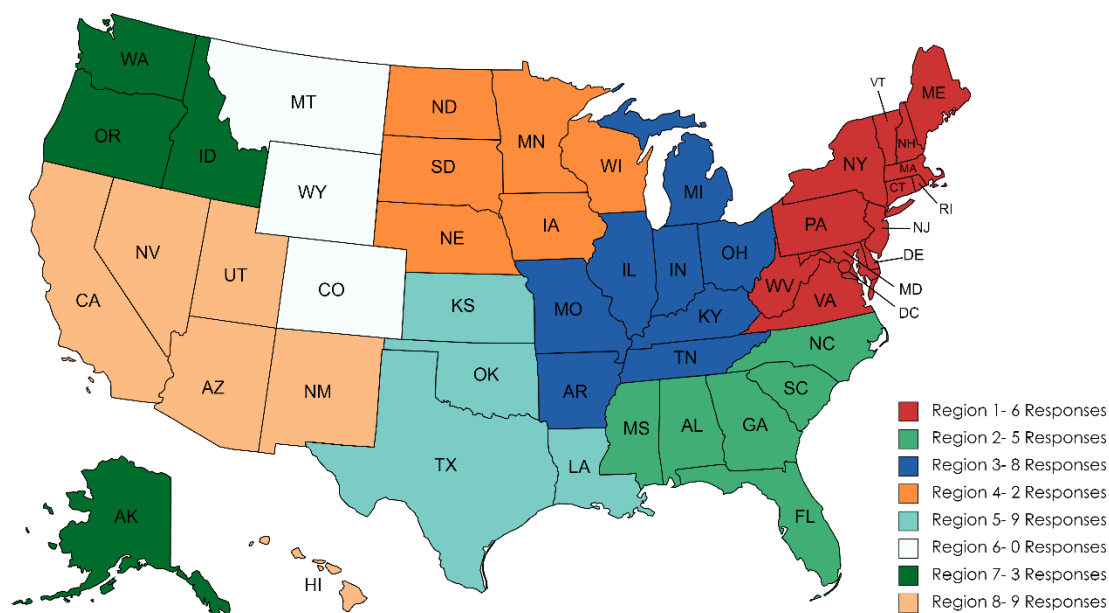
Chapter 4: Results and Discussion

Phase 1

A total of 49 responses were generated from 310 emails sent out for the first survey, for a total response rate was 15.81%. Four responses were eliminated due to either lack of information provided or due to presenting irrelevant information. Therefore, those surveys were removed from the data leaving forty-five responses for analysis. Analyzed response rate was 14.52%. For each question, variable numbers of responses were removed due to irrelevant data being presented (lack of specificity, or misunderstanding of the question). A few individual questions lacked responses. Therefore, the response rate for each question varied.

Section 1: Demographics

There were 26 states represented in the 42 responses received to this question. Texas (n=5/42, 11.1%) and California (n=4/42, 8.9%) were the states most represented. A regional map of the United States was created based on NIRA and IHSA maps, and responses for each region were collected (Figure 1). It is unsurprising that the two regions containing Texas (Region 5) and California (Region 8) also had the highest regional representation, with nine responses from each. Region 3, which contained Kentucky, was also highly represented with eight responses. This result could be due to the familiarity the regional representative and coaches had with the primary investigator, which may have made them more inclined to respond to the survey.



Created with mapchart.net

Figure 1 Distribution of responses across the United States based on regions adapted from NIRA (<https://collegerodeo.com/membership/>) and IHSA (<https://www.ihsainc.com/join/how-to-start-a-team>) maps.

Relative to the current position, two respondents indicated multiple positions, bringing the total number of responses higher than the actual number of responses to the survey (n=48 and n=45, respectively). The majority of respondents' titles were either Head or Assistant Coach (n=34/48, 70.83%, and n=3/48, 6.25%, respectively). Both positions were logged as a single category defined as Coach (n=38/48, 79.17%). Respondents that selected "other" (n=10/48, 20.83%) included titles like Dean of Equine Studies, Athletic Director, Faculty Advisor, president of the student club, or coordinator. No respondents selected the "graduate student" category.

The majority of responses regarding students' involvement in the association came from institutions that were members of NIRA (n=25/45, 55.6%, Table 1), with the second-largest response coming from members of IHSA (n=10/45, 22.2%). When distributing the survey, coaches associated with NIRA, NCEA, POLO, and USEA were emailed directly (n=145, 55, 37, and 33, respectively). For IHSA and IDA (n=38 and 8, respectively), regional representatives were contacted and asked to distribute the survey to their coaches. While response rates relative to the number of individuals contacted are highest for IHSA and IDA, it is not known how many coaches received an invitation to respond to the survey. Actual response rates from coaches in IHSA and IDA may be smaller than for associations contacted directly. This needs to be taken into consideration, as it may be a point of bias.

Table 1 Response rates for collegiate equestrian teams completing a survey on COVID-19 impacts on team management and student engagement in 2020.

Association	# of responses /# of contacts	% of contact	% of 45 responses
NIRA	25/145	17.2	55.6
USEA	4/33	12.1	8.9
NCEA	5/55	9.1	11.1
POLO	2/37	5.4	4.4
IHSA	10/38	26.3	22.2
IDA	5/8	62.5	11.1

Section 2: Spring 2020

The number of coaches or support staff working with teams ranged from zero to nine. While all teams received some sort of administrative oversight, not all were coached by paid employees. Teams run by student clubs or organizations were counted as zero for this question. Teams with multiple coaches usually include those specializing in different sections (different disciplines, or methods of riding) for a given association. The purpose of collecting this information was to allow comparison between semesters to evaluate any changes in the number of coaches or support staff that may have been due to COVID-19.

Team roster numbers ranged from 0 to 80 (Table 2). The largest reported team had 80 students. Some responses indicated zero people on the team in the Spring 2020 semester. Restrictions due to COVID-19 were initiated in the middle of most college/university semesters. Due to a lack of question specificity, it is unclear whether those teams had zero before COVID-19 restrictions were put in place, or if that was a result of COVID-19 requirements. It would not make sense to respond to an equestrian team survey if there were no team members before any restrictions due to COVID-19, so it is assumed that result was due to the COVID-19-related temporary shut-down of the program.

Table 2: Collegiate equestrian team membership during the Spring 2020 semester.

Association	Responses	Range of members
NIRA	25	0-80
NCEA	5	35-80
IHSA	10	4-80
POLO	2	10-12
IDA	5	10-80
USEA	4	4-80

Note: Some respondents noted a total number of members on multiple teams without designating a specific number of members per team.

As a result of COVID-19 restrictions, most, and probably all, colleges and universities in the United States ceased holding face-to-face classes, meetings, and events. The impact on equestrian teams meant there was no practicing or showing for most teams (n=31/43, 72.1%). Some, however, still indicated that practices continued that spring (n=6/43, 14%). Two respondents indicated they did not plan to show during the Spring 2020 semester, while 39 (n=39/45, 95.1%) reported that they did plan to have a team showing. One question that was not addressed was whether or not teams had already been showing. Some associations, like NIRA, had only attended a few of their regularly scheduled shows for the semester. Others, such as IHSA, had mostly completed their regular season and were getting ready to head into finals. This disrupted the year-end events and may have had a greater impact on student engagement for those closer to finals, particularly for graduating seniors.

While there were a lot of discussions about COVID-19 early in 2020, shutdowns happened very quickly and caught people by surprise. Responses (n=28) to the amount of time they had to react to requirements or restrictions included quantitative as well as descriptive answers. Descriptive responses such as “very little” or “not much” were considered unusable and were dropped from the analysis. Quantitative responses were categorized for analysis. These included ≥ 1 month(s), 1 week (2-7 days), and 1 day (n=10 (35.7%), 11 (39.3%), and 7 (25%), respectively). More than half of the respondents indicated that they had less than 1 week to react to the shutdown. This resulted in rapid disruption in the lives of many people, likely including equestrian team students. It certainly made it difficult for teams to develop plans that would allow students to continue to practice in some capacity.

Emergency planning includes having plans in place to allow rapid reaction to a multitude of potential events. Contingency plans could have been used to get information to coaches and teams faster, possibly allowing for a smoother transition to methods that could still allow students to practice during the shutdown. Most respondents in this survey indicated the university had no plan in place for this type of event (n=38/42, 90.5%). Others stated they did not have a specific plan, but they adapted. Some reported that they acted on plans for enacting a quarantine due to other illnesses (n=4/42, 9.5%), and one noted that they planned to conduct individual lessons on privately owned horses to allow for social distancing between riders and to avoid the use of university equipment that might transfer COVID-19 from one rider to another.

Section 3: Fall 2020

College and universities had many different restrictions in place when the Fall 2020 semester began. Some operated with the same staff that had been employed in the Spring 2020 semester, while others had experienced a loss of positions. The number of coaches and support staff reported ranged from zero through nine, the same as was reported for the Spring 2020 semester. However, two respondents (n=2/45, 4.4%) reported that there was a change in the number of staff due to COVID-19. One respondent noted that there was no change in staff numbers, but they did experience large salary cuts and loss of health insurance due to the pandemic.

In the Fall 2020 semester, team roster numbers ranged from 0 to 80 (Table 3). The largest reported team was again 80 students. Some responses indicated zero people on the team in the Fall 2020 semester, which is not surprising, as some colleges and universities were still maintaining a complete online presence. While these numbers were the same as for Spring 2020, there were reports of team size being impacted (n=24/44, 54.5%). Reasons for these impacts included things like no club sports being allowed, a loss of recruitment opportunities for new freshmen, students electing to take a semester off, and poor grades from virtual learning affecting a student's ability to be on the team. A few respondents reported an increase in riders due to having more transfer students, retaining some seniors due to an extra year of eligibility, and the fact that more students wanted to get involved with an outdoor based organization. Some respondents reported no change in numbers due to COVID-19 (n=15/44, 34.1%), and a few who were unsure if changes were due to COVID-19 (n= 5/44, 11.4%).

Table 3: Collegiate equestrian team membership during the Fall 2020 semester.

Association	Responses	Range of members
NIRA	25	0-80
NCEA	5	35-80
IHSA	10	4-80
POLO	2	10-12
IDA	5	10-80
USEA	4	4-80

Note: Some respondents noted a total number of members on multiple teams without designating a specific number of members per team.

For those who were able to resume activity in the Fall 2020 semester, there was a wide range of responses to the number of times teams had to plan for the rules and restrictions that they would have to follow. Responses to this question showed how differently each institution handled communication about the restrictions due to the pandemic, as well as how effective they were at getting the necessary information to the coaches and staff. In this survey, some respondents reported that they had only a few days (n=7/30, 23.3%), some had a few weeks (n=14/30, 46.7%), while others reported having months (n=9/30, 30.0%) to prepare for the regulations they had to follow. Communication was likely made more difficult as higher authorities (Centers for Disease Control, national and/or state governments) tended to release information sporadically and frequently, requiring coaches to change plans on the fly. This is not surprising, as new information was being learned quickly, and communication lag was almost inevitable.

The types of institutions represented in this survey consisted of public institutions (n=33/44, 75%) and private institutions (n=11/44, 25%). A chi-square test for association was conducted between university type and practicing during the Fall 2020 semester. Expected cell frequencies were not greater than five for all cells. A Fisher's Exact test was conducted between university type and practicing during the Fall 2020 semester. There was not a statistically significant association between university type and practicing during the Fall 2020 semester (p=0.701). Additionally, a chi-square test for association was conducted between the association being NIRA and practicing during the Fall 2020 semester. Expected cell frequencies were not greater than five for all cells. A Fisher's Exact test was conducted between association and practicing during the Fall 2020 semester. There was not a statistically significant association between university type and practicing during the Fall 2020 semester (p=0.500). Descriptively, when just considering teams' ability to practice in the Fall 2020 semester, a larger number reported that they were able to practice (34, 75.6%, n=45). Overall, there was no difference between institution types relative to the ability to practice, and most respondents indicated that they were having some sort of team practice that semester. It is possible that there were differences in a team's ability to practice based on the type of university pre-COVID-19, but this was not assessed in this survey. Reasons for those differences could include the cost of practicing if students were paying for lessons, availability of horses, or availability of coaches. This survey did not assess changes in the ability to practice that were specifically related to COVID-19, so can only report what was happening during the pandemic.

Multiple respondents (n=35/45) noted restrictions placed on team practices (Table 4). Ten respondents felt the question was not applicable, as they were unable to practice during this semester. College/University was the most commonly reported source of restrictions (43, 95.6%, n=45). The second most commonly reported source of restriction was the state (33, 73.3%, n=45), followed by association (9, 20%, n=45). Several of the respondents selected multiple options, indicating that restrictions were coming from several sources that coaches and staff had to abide by. One respondent reported eight different agencies that they had to be following to practice. This data highlights the complexity that teams faced when attempting to practice due to multiple agencies placing regulations on their abilities.

Table 4: Restrictions for practicing on teams during the Fall 2020 Semester

Restriction	Frequency	Percent
Limited People In Area	21	46.7%
Masks While Tacking	15	33.3%
Students Practice	1	2.2%
COVID-19 Testing	3	6.7%
Masks While Riding	8	17.8%
Small Practice Size	5	11.1%
Symptom Checks	7	15.6%
Hand Sanitizer	16	35.6%
Social Distancing	8	17.8%

A chi-square test for association was conducted between university type and showing in the Fall 2020 semester. All expected cell frequencies were at least five. There was not a statistically significant association between university type and showing in the Fall 2020 semester ($p=0.661$). A chi-square test for association was conducted between association types and showing in the Fall 2020 semester. All expected cell frequencies were at least five. There was a statistically significant association between association type and showing in the Fall 2020 semester ($p=0.007$). The basic requirements of a chi-square test are: two categorical variables, independence of observations, and all cells should have expected cell counts greater than 5. When chi-square tests were not valid, a Fishers exact test was used. Fishers exact is generally used when there are only two options for each category, there is a small sample size, and more than 20% of cells have counts less than five. Fishers exact test is a two by two test, meaning there were only two response options. If there were more responses, then they were grouped into two response options.

Showing in the Fall 2020 semester was possible, as over half of the respondents reported there was at least one team competing ($n=23/44$, 52.3%). The rest reported that they did not have any team showing in the Fall 2020 semester ($n=21/44$, 47.7%). Some comments clarified that some of the competitions were virtual/online horse shows. While it is not the traditional method of showing horses, they were still able to compete in some capacity.

A chi-square test for association was conducted between university type and showing restrictions during the Fall 2020 semester. Expected cell frequencies were not

greater than five for all cells. As a result of the small sample size and one or more of the cell frequencies being less than five, a Fisher's Exact test was conducted between association and practicing during the Fall 2020 semester. There was not a statistically significant association between university type and showing restrictions during the Fall 2020 semester ($p=0.405$). For teams that were showing and had restrictions to follow, the most commonly reported restriction required the regular use of hand sanitizer ($n=5$, 11.1%) (Table 5), followed by only being allowed to compete in virtual competitions ($n=3$, 6.7%). Show restrictions were most commonly required by the college/university ($n=39/45$, 86.7%). State governments and associations were reported as also listing restrictions ($n=25/45$, 55.6%, and $n=14/45$, 31.1%, respectively). Several respondents selected multiple options, showing that regulations came from several sources. One respondent reported eight different associations that they had to be following to show. Being required to follow so many different regulations from multiple agencies made it difficult for many teams to compete.

Table 5: Restrictions for showing on teams during the Fall 2020 Semester

Restriction	Frequency	Percent
N/A	17	37.8%
Financial Restrictions	1	2.2%
Conduct Health Surveys	5	11.1%
Masks	2	4.4%
No Group Travel	2	4.4%
No Staying Overnight	2	4.4%
Within Conference only	1	2.2%
Virtual Only	3	6.7%
No Change	8	17.8%

Section 4: Expectations for Spring 2021

In the Spring 2021 semester, more businesses and activities were expected to open up around the country. Data on expectations for Spring 2021 were collected during the Fall 2020 semester. Most respondents reported that they expected no change from the Fall 2020 semester (n=29/51, 54.9%), while some expected an increase in their ability to show (n=10/51, 19.61%). Relative to practice more were expecting an increase in practice ability as compared to those who expected a decrease (n=9/51, 17.65%, and n=2/51, 3.92%, respectively). Nearly half of the respondents expected that teams would be showing but that restrictions would be left up to event management and to the region that was hosting the show (n=19/42, 45.2%). Other respondents noted that they expected

to be able to show with restrictions (n=13/42, 31%), but the source of the restriction was not specified. Some reported an expectation that shows would continue to be postponed until after COVID-19 (n=6/42, 14.3%). A few of the comments clarified that respondents were still only allowed to attend virtual horse shows, while others were waiting for decisions from universities or associations during the time the survey was released. The variety of responses continued to showcase the uncertainty under which many teams were operating.

When questioned about their thoughts on having shows or events during the pandemic, respondents returned a variety of comments. Some reported that teams should be allowed to go on practicing and competing without any issues, while others called having practices and shows “ludicrous”, or stated that “event hosts were playing with the competitor’s lives”. Many reported that they wanted to be able to practice and show, but under restrictions to keep it as safe as possible. The majority of respondents agreed with the association's plans (n=38/44, 86.4%), but some did not agree with those plans (n=5/44, 11.4%). Due to the wording of this question, there is no information on if respondents wanted fewer restrictions or more restrictions.

One of the most common comments relative to changing COVID-19 restrictions included respondents wanting to be able to practice and possibly show with their team. Several noted they were willing to follow any guidelines or rules to do so, while many others said they would not make changes because they believed that the precautions in effect were appropriate for the situation. There were still a few that did not feel showing was appropriate and said that everything should be shut down.

Section 5: General Impacts for 2020

General team impacts were reported as open-ended responses, which were grouped into categories. Ultimately, three categories were formed: socialization, dedication, and attitude. More than half reported at least one of these general impacts to their team (n=35/45, 77.8%). The highest reported impact of COVID-19 restrictions was that they reduced a team's ability to socialize with each other. (n=26/45, 57.8%). It was noted that freshmen found it difficult to get involved and build friendships due to meetings being online and practice was conducted through individual lessons rather than in groups. Some reported that teams worked around the COVID-19 protocols and had online meetings to talk and socialize so that everyone felt included and formed a better team bond. There were also impacts on team members' dedication and attitude (n=13/45, 28.9%, and n=12/45, 26.7%, respectively). One particular negative comment about this included that students did not want to work as hard because the season could get canceled at any point, so they did not see a reason to put forth as much effort. Others reported that their team worked extremely hard for the practice they were able to have to make the most of what opportunities they were allowed. There were multiple methods employed by teams while working with COVID-19 restrictions. It appears that some teams made the most of what opportunities they had, while others struggled to keep a strong team connection.

Recruitment for universities, in general, was impacted by policies imposed during the pandemic. For many equestrian teams (n=33/42, 78.6%), the ability to recruit was either terminated or changed from allowing face-to-face, active recruiting, to only

allowing online interactions. Some respondents (n=9/42, 21.4%) reported little change in their ability to recruit new riders for the team.

The support provided to equestrian teams by their Universities varied greatly. Some (n=11/44, 24.4%) programs and teams were still shut down in the fall semester of 2020 because of the COVID-19 pandemic, one resulted in horses being sold and the equestrian program was disbanded. Others reported a decrease in budget and funding, while some reported they were not at risk and still had a strong program with good support from the university.

Phase 2

A total of 33 responses were generated from 310 emails sent out for the second survey, for a total response rate of 10.65%. Nine responses were not usable due to either no information being provided in the survey or the information given was not appropriate for the topic. Therefore, those surveys were removed from the data. That left 24 responses, for an overall usable response rate of 7.74%. Within each question, some responses were removed due to no response or inappropriate responses to that particular question, lack of specificity, or misunderstanding of the question. Therefore, the response rate for each question varied.

The survey for Phase 1 was released in December and was open until mid-January. The survey for Phase 2 was released in November and remained open until mid-December. Possibly, fewer responses were received for Phase 2 likely due to this phase being conducted during the academic term, and coaches being busy with classes and team activities.

Section 1: Demographics

Results on the demographics for Phase 2 are very similar to Phase 1. This is not surprising, as the same group of participants was contacted. However, as responses to the survey were anonymous, it could not be guaranteed that the same individuals completed the survey the second time.

There were 17 states represented in the 24 responses to the question. Texas (Region 5) was the most represented state, followed by California (Region 8), with four and three responses, respectively. The regional map created for Phase 1 was utilized again, and responses were tabulated (Figure 2). Unsurprisingly, regions with Texas and California were highly represented, as they were also the highest represented states. Region 3 results may be due to the familiarity the regional representative and coaches had with the primary investigator, which may have made them more inclined to respond to the survey.

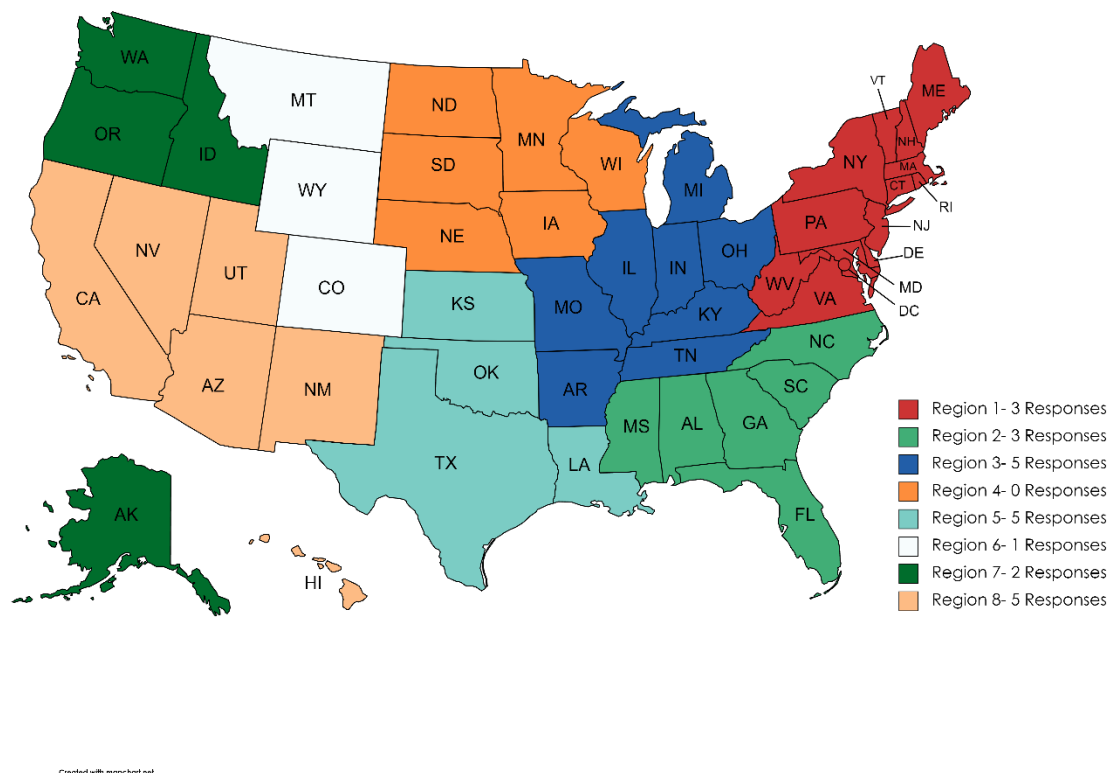


Figure 2 Distribution of responses across the United States based on regions adapted from NIRA (<https://collegerodeo.com/membership/>) and IHSA (<https://www.ihsainc.com/join/how-to-start-a-team>) maps.

Relative to the question on the current position, the majority of respondents indicated their title was Head or Assistant Coach ($n=17/24$, 70.8%, and $n=2/24$, 8.3%, respectively). Since there were only two listed as Assistant Coach, both responses were combined into a single category called Coach ($n=19/24$, 79.2%). Responses of Other ($n=5/24$, 20.8%) included titles like Dean of Equine Studies, Athletic Director, and Faculty Advisor, as well as president of a student club or a non-specific indicator of coordinator. There were no responses for graduate students.

The largest response rate for association involvement came from those belonging to NIRA (n=14/27, 51.85%, Table 6), with the second largest coming from IHSA (n=8/27, 29.63%). When distributing the survey, coaches associated with NIRA, NCEA, POLO, and USEA were emailed directly (n=145, 55, 37, and 33, respectively). For IHSA and IDA (n=38 and 8, respectively), regional representatives were contacted and asked to distribute the survey to their coaches. As with Phase 1, while response rates relative to the number of individuals contacted are highest for IHSA and IDA, it is not known how many coaches received an invitation to respond to the survey. Actual response rates from coaches in IHSA and IDA may be smaller than for associations contacted directly. This needs to be taken into consideration, as it may be a point of bias.

Table 6. Response rates for collegiate equestrian teams completing a survey on COVID-19 impacts on team management and student engagement in 2021.

Association	# of responses /# of contacts	% of contact	% of 24 responses
NIRA	14/145	9.6	51.85
USEA	3/33	9.0	11.11
NCEA	1/55	1.8	3.7
POLO	0/37	0	0
IHSA	8/38	21.0	29.63
IDA	1/8	12.5	3.7

Section 2: Spring 2021

Nearly all respondents indicated no changes in staff members for the program (n=23/24, 95.8%). However, a single respondent reported that an administrative assistant position was eliminated. They also indicated that the elimination of that position was due to the COVID-19 pandemic.

Over half of the respondents reported a change in the number of students on the team roster between the Fall 2020 and the Spring 2021 semesters (n=16/24, 66.7%). Of those with a change in membership, over half indicated that the change was due to the COVID-19 pandemic (n=13/16, 81.3%). One respondent (n=1/16, 6.3%) reported they were uncertain if the change was COVID-19 related. Due to the wording of this question, it is unclear whether any changes were positive or negative relative to the team roster.

As of the Spring 2021 semester, all respondents reported that teams were at least able to practice. While some were only practicing and unable to show, others could practice and show in the Spring 2021 semester (n=9/24, 37.5%, and n=15/24, 62.5%, respectively). Social distancing was the most commonly reported restriction during practices (n=19/24, 79.2%, Table 7), followed by the use of hand sanitizer (n=16/24, 66.7%). The most commonly reported biosecurity restriction for schools that were showing was social distancing (n=12/24, 50.0%). A chi-square test for association was conducted between the normality of mask use and the practice biosecurity measure of wearing masks while tacking horses during the Spring 2021 semester. Expected cell frequencies were not greater than five for all cells. Fisher's Exact test conducted to analyze if there was an association between the normality of mask use and the practice biosecurity measure of wearing masks while tacking horses during the Spring 2021

semester demonstrated a statistically significant association ($p=0.007$). A chi-square test for association was conducted between the practice biosecurity measure of wearing masks while tacking horses and university type during the Spring 2021 semester. Expected cell frequencies were not greater than five for all cells. A Fisher's Exact test was conducted between the practice biosecurity measure of wearing masks while tacking horses and university type during the Spring 2021 semester. There was a statistically significant association between the practice biosecurity measure of wearing masks while tacking horses and university type during the Spring 2021 semester ($p=0.014$). A chi-square test for association was conducted between association type and the practice biosecurity measure of equipment sanitization during the Spring 2021 semester. Expected cell frequencies were not greater than five for all cells. A Fisher's Exact test was conducted between association type and the practice biosecurity measure of equipment sanitization during the Spring 2021 semester. There was a statistically significant association between association type and the practice biosecurity measure of equipment sanitization during the Spring 2021 semester ($p=0.003$). A chi-square test for association was conducted between association type and the practice biosecurity measure of reduced meeting size during the Spring 2021 semester. Expected cell frequencies were not greater than five for all cells. A Fisher's Exact test was conducted between association type and the practice biosecurity measure of reduced meeting size during the Spring 2021 semester. There was a statistically significant association between association type and the practice biosecurity measure of reduced meeting size during the Spring 2021 semester ($p=0.013$). A chi-square test for association was conducted between association type and the practice biosecurity measure of mask use while tacking horses during the Spring 2021

semester. Expected cell frequencies were not greater than five for all cells. A Fisher's Exact test was conducted between association type and the practice biosecurity measure of mask use while tacking horses during the Spring 2021 semester. There was a statistically significant association between association type and the practice biosecurity measure of mask use while tacking horses during the Spring 2021 semester ($p = <0.001$).

Table 7: Restrictions placed on teams during the Spring 2021 semester

Restriction	Practice, n, (%)	Show, n, (%)
Mask while tacking	7 (29.2)	6 (25.0)
Mask while riding	4 (16.7)	1 (4.2)
Hand sanitizer	16 (66.7)	7 (29.2)
Social Distancing	19 (79.2)	12 (50)
Limiting # of people in area	14 (58.3)	9 (37.5)
Proof of vaccination	2 (8.3)	0 (0.0)
Covid-19 testing	6 (25)	0 (0.0)
Antigen Testing	4 (16.7)	3 (12.5)
Covid-19 waiver	8 (33.3)	5 (20.8)
Equipment sanitization	10 (41.7)	4 (16.7)

Section 3: Fall 2021

More colleges and universities were returning to face-to-face classes in the Fall 2021 semester. Two respondents noted that there was a change in the number of staff members between the Spring 2021 and Fall 2021 semesters, but both reported that

changes were not due to the COVID-19 pandemic. Over half of the respondents indicated that there was a change in the number of students on the team roster during the Fall 2021 semester ($n=17/24$, 70.83%). Several respondents who indicated a change stated that they were due to the COVID-19 pandemic ($n=11/24$, 45.83%), but it is unknown whether those changes were positive or negative. All respondents reported that their teams were able to practice and show during the Fall 2021 semester. Biosecurity restrictions were still in place at many institutions. The most common practice and show restriction reported was social distancing ($n=16/24$, 66.7%, and $n=16/24$, 66.7%, respectively) (Table 8).

A chi-square test for association was conducted between university type and proof of COVID-19 vaccination as a practice biosecurity measure during the Fall 2021 semester. Expected cell frequencies were not greater than five for all cells. A Fisher's Exact test was conducted between University type and proof of COVID-19 vaccination as a practice biosecurity measure during the Fall 2021 association and practicing during the Fall 2021 semester. There was a statistically significant association between University type and proof of COVID-19 vaccination as a practice biosecurity measure during the Fall 2021 semester ($p=0.014$). A chi-square test for association was conducted between university type and COVID-19 testing as a practice biosecurity measure during the Fall 2021 semester. Expected cell frequencies were not greater than five for all cells. A Fisher's Exact test was conducted between University type and COVID-19 testing as a practice biosecurity measure during the Fall 2021 semester. There was a statistically significant association between university type and COVID-19 testing as a practice biosecurity measure during the Fall 2021 semester ($p=0.014$). A chi-square test for

association was conducted between association type and the practice biosecurity measure of reduced meeting size during the Fall 2021 semester. Expected cell frequencies were not greater than five for all cells. A Fisher's Exact test was conducted between association type and the practice biosecurity measure of reduced meeting size during the Fall 2021 semester. There was a statistically significant association between association type and the practice biosecurity measure of reduced meeting size during the Fall 2021 semester ($p=0.003$).

Table 8. Restrictions placed on teams during the Fall 2021 semester

Restriction	Practice, n, (%)	Show, n, (%)
Mask while tacking	4 (16.7)	5 (20.8)
Mask while riding	1 (4.2)	1 (4.2)
Hand sanitizer	12 (50.0)	7 (29.2)
Social Distancing	16 (66.7)	16 (66.7)
Limiting # of people in area	10 (41.7)	8 (33.3)
Proof of vaccination	7 (29.2)	5 (20.8)
Covid-19 testing	7 (29.2)	7 (29.2)
Antigen Testing	4 (16.7)	1 (4.2)
Covid-19 waiver	6 (25)	7 (29.2)
Equipment sanitization	4 (16.7)	2 (8.3)

Section 4: Expectations for Spring 2022

Data on expectations for Spring 2022 were collected during the Fall 2021 semester. All respondents indicated that they would be showing, and over half indicated that the restrictions for shows during the Spring 2022 semester would be left up to the region hosting the event (n=16/20, 80.0%). Most respondents indicated that the ability to practice would be the same as during the fall semester, but one respondent reported an increase in the ability to practice (n=23/24, 95.8%, and n=1/24, 4.2%, respectively). It is possible that the increased ability to practice was due to a lifting of restrictions. Relative to showing for the Spring 2022 semester, most respondents reported having the same ability as during Fall 2021, but two reported an increase in their ability to show (n=22/24, 91.7%, and n=2/24, 8.3, respectively).

Section 5: General Impacts for 2021

General team impacts were reported as open-ended responses, which were grouped into categories. Ultimately, three categories were formed: socialization, dedication, and attitude. More than half reported at least one of these general impacts to their team (n=19/24, 79.16%). The most commonly reported team impact was on attitude, followed closely by socialization (n=14/24, 58.3%, and n=13/24, 54.2%, respectively). A chi-square test for association was conducted between association type and team socialization. Expected cell frequencies were not greater than five for all cells. A Fisher's Exact test was conducted between association type and team socialization. There was a statistically significant association between association type and team socialization (p=0.005).

Conclusions

Unsurprisingly, restrictions imposed due to the pandemic had a negative impact on student engagement in 2020 and 2021. Results showed that socialization/interaction was lower as compared to before the pandemic. Freshmen were noted to have more difficulty connecting with other team members than in past years, negatively impacting team bonding. While not statistically significant, several (n=20/69, 28.9%) coaches noted that team members lacked the usual dedication to attend practices, particularly when the team was unable to show. Lack of commitment was also evident among team members from teams that were able to show. Coaches stated that because students thought that their ability to show could be stopped at any point they were not motivated to excel.

Equestrian team management was also negatively impacted. While all programs had difficulties maintaining their activities, particularly in 2020, one program reported being terminated because of the pandemic with the worst outcome presented, resulting in the sale of the horses and farm that had been used for the program. Additionally, coaches and staff associated with the team lost their jobs. Several respondents (n=47/69, 68.1%) also noted that recruitment during 2021 continued to be difficult as compared to pre-pandemic efforts, despite the lessening of the pandemic related restrictions.

One objective of this study was to determine whether a particular pandemic restriction had a larger impact on student engagement and equestrian team management. While no single restriction had a significant impact on student morale, comments from coaches support the fact that many students had difficulties engaging and staying

involved with the team. It would be appropriate for academic institutions to work on outreach efforts and ways to connect students should such event occur again. One popular alternative used by coaches noted in the surveys to be effective was the use of Zoom group calls for the team to socialize and talk which was noted to help freshman adjust to college living.

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Appendix A



Institutional Review Board

328 Wells Hall
Murray, KY 42071-3318
270-809-2916 • msu.irb@murraystate.edu

TO: Shea Porr, Animal and Equine Science
FROM: Jonathan Baskin, IRB Coordinator *JB*
DATE: 11/23/2020
RE: Human Subjects Protocol I.D. – IRB # 21-072

The IRB has completed its review of your student's Level 1 protocol entitled *Effects of COVID-19 on intercollegiate Equestrian Teams*. After review and consideration, the IRB has determined that the research, as described in the protocol form, will be conducted in compliance with Murray State University guidelines for the protection of human participants.

The forms and materials that have been approved for use in this research study are attached to the email containing this letter. These are the forms and materials that must be presented to the subjects. Use of any process or forms other than those approved by the IRB will be considered misconduct in research as stated in the MSU IRB Procedures and Guidelines section 20.3.

Your stated data collection period is from 11/23/2020 to 11/22/2021.

If data collection extends beyond this period, please submit an Amendment to an Approved Protocol form detailing the new data collection period and the reason for the change.

This Level 1 approval is valid until 11/22/2021.

If data collection and analysis extends beyond this date, the research project must be reviewed as a continuation project by the IRB prior to the end of the approval period, 11/22/2021. You must reapply for IRB approval by submitting a Project Update and Closure form (available at murraystate.edu/irb). You must allow ample time for IRB processing and decision prior to your expiration date, or your research must stop until such time that IRB approval is received. If the research project is completed by the end of the approval period, then a Project Update and Closure form must be submitted for IRB review so that your protocol may be closed. It is your responsibility to submit the appropriate paperwork in a timely manner.

The protocol is approved. You may begin data collection now.

**Opportunity
afforded**

murraystate.edu



Institutional Review Board

328 Wells Hall
Murray, KY 42071-3318
270-809-2916 • msu.irb@murraystate.edu

TO: Shea Porr
Animal and Equine Science

FROM: Institutional Review Board
Jonathan Baskin, IRB Coordinator *JB*

DATE: 10/26/2021

RE: Continuing Review of Human Subjects Protocol I.D. – IRB # 21-072

The IRB has reviewed your application for continuing review of your student's Level 1 protocol entitled *Effects of COVID-19 on intercollegiate Equestrian Teams*. The IRB has determined that the research, as described in the continuing review application, will be conducted in compliance with Murray State University guidelines for the protection of human participants.

The updated consent materials that have been approved for use in this research study are attached to the email containing this letter. These updated forms must be presented to the subjects along with the research materials previously approved by the IRB for use in this study. It is your responsibility to ensure that the updated documents are used from this point forward. Use of any process or forms other than those approved by the IRB will be considered misconduct in research as stated in the MSU IRB Procedures and Guidelines section 20.3.

This Level 1 approval for continuing review is valid until 10/25/2022.

If data collection and analysis extends beyond this time period, the research project must be reviewed as a continuation project by the IRB prior to the end of the approval period, 10/25/2022. You must reapply for IRB approval by submitting a Project Update and Closure form (available at murraystate.edu/irb). You must allow ample time for IRB processing and decision prior to your expiration date, or your research must stop until such time that IRB approval is received. If the research project is completed by the end of the approval period, then a Project Update and Closure form must be submitted for IRB review so that your protocol may be closed. It is your responsibility to submit the appropriate paperwork in a timely manner.

This request for continuing review is approved. You may resume data collection now.

Opportunity
afforded

murraystate.edu

Appendix B

Effects of COVID-19 on Intercollegiate Equestrian Teams Travis Fortune and Shea Porr, PhD IRB #21-072

DEMOGRAPHICS

Please answer the next set of questions, in thinking about the demographics of your program.

1. What state is the institution located in?
2. Is your college/university:
 - a. Private
 - b. Public
3. What is your current position?
 - a. Head coach
 - b. Assistant coach
 - c. Grad assistant
 - d. Other (please explain)
4. What associations do you coach for? Select all that apply.
 - a. Intercollegiate Horse Show Association (IHSA)
 - b. National Collegiate Equestrian Association (NCEA)
 - c. Intercollegiate Dressage Association (IDA)
 - d. National Intercollegiate Rodeo Association (NIRA)
 - e. United States Eventing Association (USEA)
 - f. Intercollegiate Polo

For the remainder of the survey, if you work with multiple associations, please separate responses by association.

SPRING 2020

Please answer the next set of questions, in thinking about your program prior to and directly after the widespread announcement of COVID-19 in March 2020.

5. How many coaches/support staff did you have in the Spring 2020 semester?
6. How many riders did you have on the team(s) in the Spring 2020 semester?
7. Did you plan to have a team or individual showing during the Spring 2020 semester?
 - a. Yes
 - b. No

- c. If responses are different for different associations you participate with, please explain.
8. As a result of COVID-19, what changes occurred during the Spring 2020 semester for your team?
 - a. College/university completely shut down - no practices or shows
 - b. College/university completely shut down - no shows, but continued to practice
 - c. College/university did not shut down - continued to practice and show
 - d. College/university did not shut down- no shows, but continued to practice
 - e. Other (please explain)
9. How much time did you have to respond to changes driven by COVID-19 in the Spring 2020 semester?
10. Did you have any contingency plans in place designed to respond to an event like COVID-19? If so, please explain.

FALL 2020

Please answer the next set of questions, in thinking about your program in the Fall 2020 semester.

11. How many coaches/support staff did you have in the Fall 2020 semester? If that number is different from the Spring 2020 semester, did that change due to COVID-19?
12. How many riders did you have on the team(s) in the Fall 2020 semester?
13. While we understand that the number of riders on a team will change from semester to semester, do you believe any changes you saw in the number of riders during the Fall 2020 semester were due to COVID-19?
 - a. Yes
 - b. No
 - c. Do not know
 - d. Please explain
14. How long before you started practicing or showing in the Fall 2020 semester did you know what requirements or restrictions you were going to have to manage?
15. Did you have a team PRACTICING during the Fall 2020 semester?
 - a. Yes
 - b. No
 - c. If responses are different for different associations you participate with, please explain.

16. What changes were you required to make in order to be able to PRACTICE during the Fall 2020 semester?
- Not applicable/Not able to practice
 - Mask required while tacking up but not while riding
 - Mask required while tacking up and while riding
 - Limited number of people in tack rooms for social distancing
 - Use of hand sanitizer before using equipment
 - Other (Please explain)
17. What agency's restrictions are you following regarding changes to team management related to PRACTICE during the Fall 2020 semester? Select all that apply.
- State
 - College/university
 - Association
 - Other (Please explain)
18. Did you have a team SHOWING during the Fall 2020 semester?
- Yes
 - No
 - If responses are different for different associations you participate with, please explain.
19. How did COVID-19 affect the ability of your team to SHOW during the Fall 2020 semester? Check all that apply.
- Not applicable/not allowed to show at all
 - Only allowed to show in state
 - Not allowed to stay overnight
 - Not allowed to travel in groups
 - Not allowed to haul horses
 - No affect (no changes were made)
 - Other (Please explain)
20. What agency's restrictions are you following regarding changes to team management related to SHOWING during the Fall 2020 semester?
- State
 - College/university
 - Association
 - Other

SPRING 2021

Please answer the next set of questions, in thinking about your program as we head into the Spring 2021 semester.

21. What are the association's plans for showing during the Spring 2021 semester?
- Showing with restrictions

- b. Continuing to postpone shows until after COVID-19
 - c. Showing but leaving restrictions and event management up to the regions/areas
 - d. Other, (Please explain)
22. Compared to Fall 2020, what changes are you expecting relative to your teams' ability to practice or show during the Spring 2021 semester? (Select all the apply)
- a. No change from the Fall 2020 semester
 - b. Increased practice ability
 - c. Increased showing ability
 - d. Decreased practice ability
 - e. Decreased showing ability
 - f. Other (Please explain)

GENERAL IMPACTS

Please answer the next set of questions, in thinking about what general impacts COVID-19 has had on your program.

23. Has COVID-19 had impacts on team attitude, socialization, interactions, or dedication? If so, please explain.
24. Has COVID-19 had impacts on recruitment? If so, please explain.
25. What are your thoughts on having shows and events during the COVID-19 pandemic?
26. Do you agree with the plans that are being set by the associations that your team participates within?
- a. Yes
 - b. No
 - c. If responses are different for different associations you participate with, please explain.
27. What modifications would you make to the COVID-19 policies you are following currently? Please explain.
28. In response to COVID-19, are your teams at risk of being reduced or shut down by your college/university? If yes, please explain.

If there is anything else you would like to share or feel is important to understand about the effects of COVID-19 on your team in the past year please explain below.

Appendix C

Follow Up Effects of COVID-19 on Intercollegiate Equestrian Teams

Travis Fortune and Shea Porr, PhD

IRB #21-072

DEMOGRAPHICS

Please answer the next set of questions, in thinking about the demographics of your program.

1. What state are you located in?
2. Is your University/College:
 - a. Private
 - b. Public
3. What is your current position?
 - a. Head Coach
 - b. Assistant coach
 - c. Grad assistant
 - d. Other (please explain)
4. What associations do you coach for? Select all that apply.
 - a. Intercollegiate Horse Show Association (IHSA)
 - b. National Collegiate Equestrian Association (NCEA)
 - c. Intercollegiate Dressage Association (IDA)
 - d. National Intercollegiate Rodeo Association (NIRA)
 - e. United States Eventing Association (USEA)
 - f. Intercollegiate Polo

SPRING 2021

The next set of questions please respond in reference to policy and management policy and management operations during the Spring 2021 semester.

5. Was there a change in the number of faculty or support staff from Fall 2020 to Spring 2021?
 - a. Yes
 - b. no
 - c. If yes explain

6. If there was change was it due to the pandemic?
 - a. Yes
 - b. No
 - c. Uncertain
 - d. N/A

7. Was there a change in the number of team members from Fall 2020 to Spring 2021? Yes/no if yes, which association(s) were they part of? Respond to all that apply
 - a. Intercollegiate Horse Show Association (IHSA)
 - b. National Collegiate Equestrian Association (NCEA)
 - c. Intercollegiate Dressage Association (IDA)
 - d. National Intercollegiate Rodeo Association (NIRA)
 - e. United States Eventing Association (USEA)
 - f. Intercollegiate Polo

8. Was the change stated above due to the pandemic?
 - a. Yes
 - b. no
 - c. uncertain
 - d. N/A

9. In regards to classes, what changes occurred from the Fall 2020 to Spring 2021 semester for your team?
 - a. College/University Open with face to face classes
 - b. College/University Open with online classes only
 - c. College/University Open with hybrid classes
 - d. College/University closed

10. In regards to team functionality, what changes occurred from the Fall 2020 to Spring 2021 semester for your team?
 - a. Team, Practicing no showing
 - b. Team, Practicing and showing
 - c. Team, No practice and no showing

11. In regards to PRACTICE, what biosecurity measures were your team following?
Select all that apply
 - a. Mask use while tacking
 - b. Mask use while riding
 - c. Use of Hand Sanitizer

- d. Equipment sanitization
- e. Social Distancing
- f. Limiting number of people in meetings
- g. Proof of vaccination
- h. Covid PCR Test
- i. Antigen Test
- j. Signed Waiver
- k. Other: please explain

12. In regards to SHOWING, what biosecurity measures were your team? Select all that apply

- a. Masks while tacking
- b. Masks while riding
- c. Use of Hand Sanitizer
- d. Sanitizing equipment
- e. Social Distancing
- f. Meeting in smaller groups
- g. Vaccine
- h. Covid Test
- i. Antigen Test
- j. Signed Waiver
- k. Other: please explain

FALL 2021

The next set of questions please respond in reference to policy and management policy and management operations during the fall 2021 semester.

13. Was there a change in the number of faculty/support staff from Spring 2021 to Fall 2021?

- a. Yes
- b. no
- c. If yes explain

14. If there was change, was it due to the pandemic?

- a. Yes
- b. No
- c. Uncertain
- d. N/A

15. Was there a change in the number of team members from Spring 2021 to Fall 2021? Yes/no if yes respond to all that apply
- Intercollegiate Horse Show Association (IHSA)
 - National Collegiate Equestrian Association (NCEA)
 - Intercollegiate Dressage Association (IDA)
 - National Intercollegiate Rodeo Association (NIRA)
 - United States Eventing Association (USEA)
 - Intercollegiate Polo
16. If there was change was it due to the pandemic?
- Yes
 - No
 - Uncertain
 - N/A
17. In regards to classes, what changes occurred from the Spring 2021 to the Fall 2021 semester for your team?
- College/University Open, Face to Face classes
 - College/University Open, Online classes only
 - College/University Open, Hybrid classes
 - College/University Closed
18. In regards to team functionality, what changes occurred from the Spring 2021 to the Fall 2021 semester for your team?
- Team, Practicing no showing
 - Team, Practicing and showing
 - Team, No practice and no showing
19. In regards to PRACTICE, What biosecurity measures were your team following?
Select all that apply
- Masks while tacking
 - Masks while riding
 - Use of Hand Sanitizer
 - Sanitizing equipment
 - Social Distancing
 - Meeting in smaller groups
 - Vaccine
 - Covid Test
 - Antigen Test
 - Signed Waiver

k. Other: please explain

20. In regards to SHOWING, what biosecurity measures were your team following?

Select all that apply

- a. Masks while tacking
- b. Masks while riding
- c. Use of Hand Sanitizer
- d. Sanitizing equipment
- e. Social Distancing
- f. Meeting in smaller groups
- g. Vaccine
- h. Covid Test
- i. Antigen Test
- j. Signed Waiver
- k. Other: please explain

SPRING 2022

The next set of questions please respond in reference to policy and management policy and management operations during the Spring 2022 semester.

21. What are the association's plans for showing during the Spring 2022 semester?

- a. Showing under strict regulations
- b. Continuing to postpone shows until after COVID-19
- c. Showing but leaving regulations and events up to the regions/areas
- d. Other, (please explain)

22. In relation to team PRACTICE for the Spring 2022 semester, what changes are you expecting relative to your teams' ability?

- a. No change from the fall 2021 semester
- b. Increased practice ability
- c. Increased showing ability
- d. Decreased practice ability
- e. Decreased showing ability
- f. Other (please explain)

23. In relation to team SHOWING, what changes are you expecting relative to your teams' ability?

- a. No change from the fall 2021 semester
- b. Increased practice ability
- c. Increased showing ability

- d. Decreased practice ability
- e. Decreased showing ability
- f. Other (please explain)

GENERAL IMPACTS

Please answer the next set of questions, in thinking about what general impacts COVID-19 has had on your program.

24. Has the COVID-19 pandemic continued to impact the following:
Please explain for each section
- a. Team attitude: yes no
 - b. Socialization/interactions: yes no
 - c. Dedication: yes no
 - d. Performance: yes no
25. Has the COVID-19 pandemic affected the following:
Please explain for each section.
- a. Recruitment:
 - b. Spectators:
 - c. Other aspects of team management
26. On a scale from 1 being NOT IMPORTANT to 4 being EXTREMELY IMPORTANT, please rank how much the pandemic is going to impact the management of your team, in your opinion?
27. Do you agree with the plans that are set by the associations that your team participates within?
- a. Yes
 - b. No
 - c. Please explain
28. What modifications would you make to the COVID-19 policies you are following currently? Please explain.
29. Has your team been disciplined for not following COVID guidelines?
- a. Yes
 - b. No
 - c. Please explain

30. In response to COVID-19, are your teams at risk of being reduced or shut down by your college/university? If yes, please explain.

31. Have masks become a new normal for your team?
 - a. Yes
 - b. No
 - c. Please explain

32. At this time when you are considering the impact of the pandemic, are you more concerned with the disease itself or the changes in policy