

Buckner File No. TWU-00001

INVESTIGATION REPORT (REDACTED VERSION)
TEXAS WOMAN'S UNIVERSITY
WOMEN'S VOLLEYBALL PROGRAM

IN RE: RHABDOMYOLYSIS ALLEGATIONS

March 20, 2017

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INTRODUCTION AND OVERVIEW

I. PURPOSE OF THE REPORT

This report (the "Report") summarizes the findings of the external investigation conducted by the Michael L. Buckner Law Firm, P.A., ("Buckner") involving the institution's intercollegiate sports program (and, specifically, the women's volleyball sports team) at Texas Woman's University ("TWU"). The external investigation, which was launched to obtain objective information to identify the cause of the August 2016 hospitalization of women's volleyball student-athletes with rhabdomyolysis. Rhabdomyolysis is a syndrome, which is caused by direct or indirect muscle injury, resulting from the death of muscle fibers and release of their contents into the bloodstream.¹ The findings contained in the Report generally involve the coaching methods and management practices of the TWU women's volleyball program. The evidence summary contained in the Report is based on information collected and analyzed by Buckner as of March 20, 2017. Accordingly, the evidence summary, issues and allegations may be impacted by subsequent interviews or the receipt of additional information by Buckner or TWU.

II. INSTITUTIONAL AND ATHLETICS BACKGROUND

An act of the 27th Texas Legislature in 1901 founded the Girls Industrial College as a public institution that would become TWU in 1957. The school had then and has now a dual mission: to provide a liberal education and to prepare young women "for the practical industries of the age" with a specialized education. Men have been admitted to TWU since 1972. TWU continues today as a public university that offers a comprehensive catalog of academic studies, including baccalaureate, master's and doctoral degrees. Now in its tenth decade, the University has grown from a small college to a major university. TWU is the

¹"Rhabdomyolysis", U.S. National Library of Medicine, available at: <https://medlineplus.gov/ency/article/000473.htm>; "Rhabdomyolysis," WebMD, available at: <http://www.webmd.com/a-to-z-guides/rhabdomyolysis-symptoms-causes-treatments>; "Rhabdomyolysis," Medscape, available at: <http://emedicine.medscape.com/article/1007814-overview>.

largest university primarily for women in the United States, with the main campus in Denton and health science centers in Dallas and Houston.

TWU possesses an enrollment of approximately 15,000 students. Dr. Carine M. Feyten is the institution's chancellor and president. The chair of the TWU board of regents is Mary Pincoffs Wilson. With respect to intercollegiate athletics, TWU is an National Collegiate Athletic Association ("NCAA") Division II institution and a member of the Lone Star Conference and the Midwest Independent Conference (women's gymnastics). The institution sponsors five women's sports teams. Chalese Connors is the director of athletics. Charolette Hunt is the assistant director of athletics/compliance and academic services. Dr. Don Edwards is the faculty athletics representative.

III. CASE CHRONOLOGY

This case began on August 20, 2016, when a women's volleyball student-athlete was admitted to a hospital. Further, on August 21, 2016, seven more women's volleyball student-athletes were admitted to hospitals. The treating medical professionals determined the student-athletes were suffering from rhabdomyolysis, which is a disorder that causes a breakdown of muscle tissue which releases cells into the bloodstream and can lead to kidney failure. TWU, which could not ascertain whether the outbreak was caused by exercises, workout conditions, dehydration or other causes, launched an internal investigation into the cause of the outbreak.

On August 22, 2016, the Denton County (Texas) Public Health Department contacted the institution regarding its "investigation into an unusual cluster of a rare condition as reported to us by a local hospital."² The department subsequently concluded the student-athletes had exertional rhabdomyolysis.

On August 30, 2016, the institution retained Buckner to conduct an external investigation. Michael Buckner ("M. Buckner"), Buckner president and attorney, was assigned to lead the external investigation.

On September 10, 2016, M. Buckner submitted a request for information to the institution. The institution produced documents in response to the September 10 request for information on September 1, 7, 13, 16, 19-20 and 23, 2016.

On September 26-28, 2016, M. Buckner conducted campus interviews of student-athletes, students, institutional employees and the team physician.

² App. 80.

On October 3-5, 2016, M. Buckner conducted campus interviews of student-athletes and institutional employees.

In November and December 2016, the institution conducted numerous formal and informal discussions with the hospitalized women's volleyball student-athletes and the student-athletes' parents regarding the outbreak. During this time, the institution also began negotiations with the student-athletes to secure relevant medical files.

On January 12, 14, 18, 20 and 30, 2017, and February 2, 2017, the hospitalized women's volleyball student-athletes produced (or permitted the institution to supply) medical records and other documents to the Buckner medical and sports medicine experts for analysis.

In January and February 2017, Buckner conducted a comprehensive review of the evidence. For example, M. Buckner evaluated the interview transcripts and documents produced by the institution. Further, the Buckner medical and sports medicine experts analyzed medical files produced by the hospitalized women's volleyball student-athletes.

On March 20, 2017, Buckner submitted the Report to TWU.

IV. IDENTITIES OF INVOLVED PARTIES

Based on the collection of evidence during the investigation, Buckner is able to identify the following individuals who were interviewed during the investigation or referenced in the Report:

A. Administrators and Staff (in alphabetical order)

Michael Auvenshine (Dr.): team physician.

Shelly Barberee: former head women's volleyball coach.

Jessica Beener: former interim head women's volleyball coach and former assistant women's volleyball coach.

Chalese Connors: director of athletics.

Brett Crossland: sports and conditioning coach.

Taylor High: assistant women's basketball coach.

Charolette Hunt: assistant director of athletics/compliance and academic services.

Nicole Jackson: assistant athletics trainer.

Beth Jillson: head women's basketball coach.

Kris Ring: assistant director of athletics for sports medicine.

Hillary Shaffer: former graduate assistant women's volleyball coach.

Valerie Stevenson: assistant athletic trainer.

B. Student-Athletes (in random order)

Student-Athlete No. 1: women's volleyball student-athlete.

Student-Athlete No. 2: women's volleyball student-athlete.

Student-Athlete No. 3: women's volleyball student-athlete.

Student-Athlete No. 4: women's volleyball student-athlete.

Student-Athlete No. 5: women's volleyball student-athlete.

Student-Athlete No. 6: women's volleyball student-athlete.

Student-Athlete No. 7: women's volleyball student-athlete.

Student-Athlete No. 8: women's volleyball student-athlete.

Student-Athlete No. 9: women's volleyball student-athlete.

Student-Athlete No. 10: women's volleyball student-athlete.

Student-Athlete No. 11: women's volleyball student-athlete.

Student-Athlete No. 12: women's volleyball student-athlete.

Student-Athlete No. 13: women's volleyball student-athlete.

Student-Athlete No. 14: women's volleyball student-athlete.

Student-Athlete No. 15: women's volleyball student-athlete.

Student-Athlete No. 16: women's volleyball student-athlete.

Student-Athlete No. 17: women's volleyball student-athlete.

Student-Athlete No. 18: women's volleyball student-athlete.

OVERVIEW OF THE INVESTIGATION

I. METHODOLOGY AND SCOPE OF THE INVESTIGATION

This case began on August 20, 2016, when a women's volleyball student-athlete was admitted to a hospital. Further, on August 21, 2016, seven more women's volleyball student-athletes were admitted to hospitals. The medical professionals subsequently determined the student-athletes were suffering from rhabdomyolysis, which is a disorder that causes a breakdown of muscle tissue which releases cells into the bloodstream and can lead to kidney failure. The Denton County (Texas) Public Health Department concluded the student-athletes had exertional rhabdomyolysis. TWU, which could not ascertain whether the outbreak was caused by exercises, workout conditions, dehydration or other causes, launched an investigation into the cause of the outbreak. On August 30, 2016, TWU commissioned an outside firm, Buckner, to conduct an independent external investigation. From August 30, 2016, through March 20, 2017, Buckner conducted its investigation.

The scope of Buckner's investigation focused on the identification of the cause of the August 2016 hospitalization of women's volleyball student-athletes with rhabdomyolysis. Buckner utilized an investigative methodology and strategy designed to gather information to substantiate and refute all the possible cause or causes of the outbreak. Accordingly, Buckner used recorded investigation interviews, document review, background research, expert analyses and other investigative techniques to obtain the relevant information.

Between September 26, 2016, through October 5, 2016, Buckner conducted 26 interviews of 23 individuals. The individuals interviewed included student-athletes, coaches, athletics administrators and institutional employees. The interviews were conducted on the TWU campus. Buckner also requested, inspected, gathered and evaluated approximately 500 pages of potentially relevant documents.

II. SUMMARY OF THE ALLEGATIONS AND FINDINGS

A. Allegation

During the August 2016 pre-season period, eight women's volleyball student-athletes were admitted to hospitals for rhabdomyolysis, which is a disorder that causes a breakdown of muscle tissue which releases cells into the bloodstream and can lead to kidney failure. The Denton County (Texas) Public Health Department concluded the student-athletes had exertional rhabdomyolysis, which is the exercise-induced breakdown of muscle from extreme physical exertion.

B. Source of Allegation

The institution was provided notice of the outbreak on August 20 and 21, 2016, when eight women's volleyball student-athletes were admitted to hospitals. Later, the Denton County (Texas) Public Health Department opined the student-athletes had exertional rhabdomyolysis.

C. Finding

During the August 2016 pre-season period, the rhabdomyolysis outbreak involving eight women's volleyball student-athletes was caused by: (1) the student-athletes' involvement in an August 18, 2016, fitness test, which included 75 triceps push-ups, conducted by the women's volleyball coaching staff; and (2) at least one of the following two factors: (a) dehydration; and (b) low-level of fitness of the triceps muscle.

III. SUMMARY OF EVIDENCE COLLECTION ACTIVITIES

A. Documents

Buckner evaluated approximately 500 documents produced by the institution and collected through the firm's research. The documents were uploaded and stored on the firm's Box platform. The Appendix to the Report includes the most pertinent documents obtained during the investigation.

B. Interviews

Buckner conducted interviews with numerous persons. A list of the interview subjects is provided below:

INTERVIEW SUBJECTS	DATE OF INTERVIEW
Michael Auvenshine	September 26, 2016
Student-Athlete No. 1	September 26, 2016
Jessica Beener	October 3, 2016
Student-Athlete No. 2	September 26, 2016
Student-Athlete No. 3	September 26, 2016
Student-Athlete No. 4	September 28, 2016
	October 5, 2016
Chalese Connors	October 3, 2016
Brett Crossland	September 26, 2016
Student-Athlete No. 5	September 26, 2016

INTERVIEW SUBJECTS	DATE OF INTERVIEW
Student-Athlete No. 6	September 26, 2016
Student-Athlete No. 7	September 28, 2016 October 4, 2016
Charolette Hunt	September 26, 2016
Nicole Jackson	September 26, 2016
Student-Athlete No. 8	October 5, 2016
Student-Athlete No. 9	September 26, 2016
Student-Athlete No. 10	October 4, 2016
Student-Athlete No. 11	October 5, 2016
Student-Athlete No. 12	October 4, 2016
Student-Athlete No. 13	October 3, 2016
Student-Athlete No. 14	September 26, 2016 October 3, 2016
Hillary Shaffer	October 3, 2016
Valerie Stevenson	September 26, 2016
Student-Athlete No. 15	October 4, 2016

C. Expert Analysis

Buckner retained the following experts to provide subject-matter analyses on medical evidence collected during the investigation:

EXPERT	REPORT SUBMISSION DATE	SUBJECT-MATTER EXPERTISE
Timothy Neal, MS, ATC	February 10, 2017	Sports medicine
Robert H. Weiss, MD	February 3, 2017	Medicine

IV. EVIDENTIARY STANDARD OF PROOF

Buckner utilized the clear and convincing standard of proof in analyzing the evidence collected during the external investigation. This standard requires proof which: "results in reasonable certainty of the truth of the ultimate fact in controversy"; "is highly probable"; and "requires more than a preponderance of the evidence but less than proof beyond a reasonable doubt."

FINDINGS

I. CAUSE OF THE RHABDOMYOLYSIS OUTBREAK

A. Allegation

During the August 2016 pre-season period, eight women's volleyball student-athletes were admitted to hospitals for rhabdomyolysis, which is a disorder that causes a breakdown of muscle tissue which releases cells into the bloodstream and can lead to kidney failure. The Denton County (Texas) Public Health Department concluded the student-athletes had exertional rhabdomyolysis, which is the exercise-induced breakdown of muscle from extreme physical exertion.

B. Source of Allegation

The institution was provided notice of the outbreak on August 20 and 21, 2016, when eight women's volleyball student-athlete was admitted to hospitals. Later, the Denton County (Texas) Public Health Department opined the student-athletes had exertional rhabdomyolysis.

C. Finding

During the August 2016 pre-season period, the rhabdomyolysis outbreak involving eight women's volleyball student-athletes was caused by: (1) the student-athletes' involvement in an August 18, 2016, fitness test, which included 75 triceps push-ups, conducted by the women's volleyball coaching staff; and (2) at least one of the following two factors: (a) dehydration; and (b) low-level of fitness of the triceps muscle.

D. Summary of Evidence³

Summer 2016 Workouts⁴

On May 9, 2016, the women's volleyball coaching staff received post-season analyses of changes in body fat and lean body mass from the institution's

³ Most interview testimony were generally consistent with the information contained in the physical evidence collected during the institution's internal investigation and Buckner's external investigation. Thus, unless it is necessary to highlight a quotation from an interview transcript, citations in the Report will be to the documents included in the Appendix.

⁴ NCAA Division II legislation permits institutions to conduct summer athletically-related activities involving strength and conditioning training for student-athletes. Further, NCAA legislation permits student-athletes to request summer training workouts from athletics staff.

performance clinic.⁵ [Note: Buckner's review of the analyses did not raise any red flags or concerns relating to the August 2016 rhabdomyolysis outbreak.]

On May 10, 2016, the athletics compliance office informed the coaching staff that June 1, 2016, is "the first day to begin summer workouts for fall championship sports."⁶

On May 12, 2016, then-assistant volleyball coach Jessica Beener emailed student-athletes inviting the student-athletes to participate in strength and conditioning coach Brett Crossland-supervised campus summer workouts.⁷ Later, Crossland submitted summer training programs to student-athletes, as well as notifications to TWU coaches regarding campus workouts.⁸ The women's volleyball coaching staff subsequently continued communications with the student-athletes regarding summer workouts. Later in the month, the institution emailed the student-athletes with additional information concerning summer workouts and pre-season practices.⁹

On May 19, 2016, then-head women's volleyball coach Shelly Barberee forwarded to the incoming student-athletes the summer training program.¹⁰ The summer workouts focused on three aspects: "jumping"; "low back and posterior chain strength"; and "conditioning."¹¹ The workouts included exercises that used or impacted the triceps muscles, including, but not limited to push-ups and dip sets.¹²

In mid-May 2016, Crossland and the women's volleyball coaching staff discussed summer workouts.¹³

In June and July 2016, Crossland organized and conducted athletically-related activities for several sports teams, including women's volleyball. Crossland designed the 2016 summer training program to address specific strength and conditioning needs for women's volleyball student-athletes. Crossland conducted summer workouts on campus three days a week. The workouts included a variety of exercises, including, weight lifting, cardiovascular exercises and other activities. Crossland also instructed the student-athletes on how to complete a triceps push-up, which is modified push-up that works the triceps muscle by positioning the arms closer to the upper torso. Crossland permitted the student-athletes to complete

⁵ App. 96-97.

⁶ App. 98-102.

⁷ App. 106-107.

⁸ App. 108-110.

⁹ See, e.g., App. 217-223, 253.

¹⁰ App. 274-290.

¹¹ App. 274.

¹² See, e.g., App. 277, 283.

¹³ App. 103-105.

triceps push-ups either on the athlete's knees or toes or using a wall as resistance. Crossland described the summer sessions as follows:

Summer strength and conditioning sessions were held starting June 12 and lasted through August 17. Sessions were held from 10:30 am to 12:00 pm CT each Monday, Wednesday, and Friday during that time. A total of 31 sessions were conducted throughout this time frame. I have attached a copy of the specific workouts that each athlete completed. Due to the workouts being voluntary, I was not allowed to collect data for the number of sessions each athlete participated in. Below is my best estimation of the number of sessions that each athlete attended during that time, any athletes not listed below did not participate in any summer strength and conditioning sessions.¹⁴

According to Crossland's recollection, the majority of the women's volleyball team participated in at least one workout during the summer 2016 period. However, the testimony of Crossland and women's volleyball student-athletes noted the frequency and quality of the workouts for each student-athlete varied. For example, Crossland described Student-Athlete No. 14 and Student-Athlete No. 7's summer workouts as very good, but noted other student-athletes' fitness may have been impacted by the lack of frequent workouts (whether the student-athlete worked out on campus or on their own):

STUDENT-ATHLETES	CROSSLAND ESTIMATE OF SUMMER PARTICIPATION
Student-Athlete No. 1	15 occasions (completed sporadically throughout the summer)
Student-Athlete No. 2	20 occasions (routinely participated in modified workouts due to back injury but was consistent throughout the summer)
Student-Athlete No. 3	1-2 occasions
Student-Athlete No. 4	12 occasions
Student-Athlete No. 7	26 occasions
Student-Athlete No. 16	10 occasions
Student-Athlete No. 17	4 occasions
Student-Athlete No. 18	4 occasions

¹⁴ App. 343.

STUDENT-ATHLETES	CROSSLAND ESTIMATE OF SUMMER PARTICIPATION
	(completed during the month of August)
Student-Athlete No. 8	2 occasions
Student-Athlete No. 10	10 occasions (completed after mid-July)
Student-Athlete No. 11	8 occasions
Student-Athlete No. 14	26 occasions
Student-Athlete No. 15	4 occasions

Student-Athlete No. 11, for example, acknowledged receiving Crossland's written summer workout in June, but did not use it. Instead, she only worked out two to three times in June when she conducted a 10- to 15-minute treadmill running workout. Later, Student-Athlete No. 11 stated she worked out with Crossland on campus twice a week for one and one-half hours (Monday and Wednesday) starting with the second week in July to end of the month. Student-Athlete No. 11 did not recall working out in August prior to the beginning of the pre-season period.

Conversely, Student-Athlete No. 8 recalled "work[ing] out every day" on her own for one to two hours with "running and strength and conditioning" exercises from May to August (Monday through Friday and "some Saturdays and Sundays, depending on what we were doing"). Student-Athlete No. 8 also participated in Crossland's campus workouts on a few occasions. Student-Athlete No. 4 reported working out on her own every day during June and July, and included weightlifting, push-ups, running, triceps extensions with dumbbells and other exercises. Student-Athlete No. 4 stated she worked out with Crossland on one to two occasions per week toward the end of summer (second half of July). Student-Athlete No. 4 recalled Crossland included push-ups in the summer workouts.

Student-Athlete No. 18 worked out with a personal trainer during the summer, and incorporated cardiovascular, arm and leg exercises (weights, burpees¹⁵, push-ups, arm raises) in the workouts.

¹⁵ A burpee (or squat thrust) is an exercise performed in several steps: (1) standing position; (2) squat position with hands on the ground; (3) low position (so the chest and lower body touch the ground); (4) return to the squat position; and (5) jump from the squat position to the standing position. See "Burpee Exercise - How to do Perfect Burpees," <https://www.youtube.com/watch?v=Pf7wZvraWV0>.

Reporting to Campus

On Thursday, August 11, 2016, currently enrolled (returning) student-athletes reported to campus to undergo medical evaluations, media training and other meetings.¹⁶

On Friday, August 12, 2016¹⁷, freshmen and transfer student-athletes reported to campus to undergo medical evaluations and other meetings.¹⁸ The institution catered lunch from Cowboy Chicken.¹⁹ Later on August 12, all student-athletes attended an athletics training meeting.²⁰ According to the testimony of some student-athletes, the athletics training staff provided the student-athletes with education on proper hydration prior to the start of pre-season. The athletics training staff explained the urine hydration levels and noting student-athletes' urine should be clear in color. The athletics training staff also informed student-athletes to inform the trainers if the athletes "have any pain or, you know, unusual pains or things like."²¹ After the meeting, the student-athletes participated in a team bonding activity at a student-athlete's apartment.²²

On Saturday, August 13, 2016, the institution catered breakfast from Fuzzy Tacos for the student-athletes.²³ Later, the student-athletes were transported via institutional bus to Main Event in Lewisville, Texas, for a team-building activity.²⁴ During the outing at Main Event, the student-athletes "bowled, played laser tag, mini golf, and billiards."²⁵ The team ate lunch at the McAlister's Deli in Denton, Texas.²⁶ Around 4:00 pm CT, the student-athletes participated in a one-hour "team scavenger hunt" at Denton Square.²⁷ The team ate dinner at Mellow Mushroom in Denton.²⁸

¹⁶ App. 224, 311. The institution also compiled the student-athletes' medical histories. App. 301-310.

¹⁷ On August 12, 2016, then-head women's volleyball coach Shelly Barberee began family leave. On August 24, 2016, Barberee resigned her position at the institution. Barberee's resignation was not connected, linked or caused by the rhabdomyolysis outbreak. Barberee declined to be interviewed by M. Buckner during the external investigation. Instead, Barberee's legal counsel offered to respond to written questions. In order to maintain the integrity of the investigation, M. Buckner declined the offer.

¹⁸ App. 224, 311.

¹⁹ App. 292, 344.

²⁰ App. 224.

²¹ The August 2015 version of the Student-Athlete Handbook also required student-athletes to report injuries to the athletics training staff. See App. 39-40, 43.

²² App. 292.

²³ App. 292, 344.

²⁴ App. 292, 344.

²⁵ App. 292.

²⁶ App. 292, 344.

²⁷ App. 293, 344.

²⁸ App. 292, 344.

On Sunday, August 14, 2016, the institution provided breakfast on-campus.²⁹ Thereafter, the student-athletes were transported via institutional bus to Topgolf in The Colony, Texas, for a two-hour team-building activity.³⁰ The team ate lunch at Pot Belly in The Colony.³¹ The student-athletes participated in a photo session from 4:00 pm to 6:00 pm CT.³² The team ate a pasta dinner at Beener's house.³³

Pre-Season Activities³⁴

Monday, August 15, 2016

The institution catered breakfast in an on-campus facility for the student-athletes prior to the first athletically-related activity.³⁵

Between approximately 8:30 am to 9:00 am CT, the women's volleyball coaching staff (specifically, led by Jessica Beener, then-assistant women's volleyball coach) conducted an athletically-related activity during which the student-athletes completed the first fitness test.³⁶ The session started with student-athletes stretching, performing various drills and jogging.³⁷ The first fitness test consisted of three-rounds of ten box jumps, a crab walk from the basketball end line to half-court, a burpee from half-court to the end line and two laps around the basketball court.³⁸ The student-athletes were required to complete each round under eight minutes.³⁹ All student-athletes passed the first fitness test. The coaching staff awarded the student-athletes with practice gear after the first fitness test.⁴⁰ The first fitness test was developed by Crossland.⁴¹

²⁹ App. 292.

³⁰ App. 292, 344.

³¹ App. 292, 344.

³² App. 292.

³³ App. 292, 344.

³⁴ The campus athletically-related activities occurred in Pioneer Hall. Beener's practice notes and plans for the week are included in the Appendix. App. 324-332, 381-384. The pre-season testing and practice drill result charts are also included in the Appendix. App. 373-380. Further, the written schedule, which may not reflect the actual timetable of events, for the first week of pre-season practice is included in the Appendix. App. 333-336.

³⁵ App. 293, 344.

³⁶ The fitness tests that occurred during the 2015 pre-season were different than the 2016 pre-season tests. In 2015, according to Beener, the fitness tests were completed "on the first Monday in the morning session" and included: (1) two 300-yard sprints; (2) one-minute burpee test; (3) one-minute sit-up test; and (4) one-minute push-up test. App. 292. Beener noted if the student-athletes did not achieve "an average time of 74 on their two 300-yard sprints, they had to keep doing their sprints until they average 74." App. 292.

³⁷ App. 293.

³⁸ App. 293, 344, 346.

³⁹ App. 293, 344.

⁴⁰ App. 339.

⁴¹ App. 292.

After the morning session, the student-athletes completed a 4- to 7-minute ice bath.⁴²

The student-athletes were provided a three-hour break between the morning and afternoon sessions. The institution catered lunch from Pita Pit for the student-athletes during this period.⁴³

At approximately 3:30 pm CT, the women's volleyball student-athletes participated in a two-hour volleyball practice, which was conducted by the women's volleyball coaching staff. During the afternoon session, the student-athletes completed the second fitness test. The second fitness test consisted of two 300s, which were conducted "indoors on a basketball court--6 times down and back" under "72 seconds or quicker."⁴⁴ All student-athletes passed the second fitness test. The coaching staff awarded the student-athletes with a uniform after the second fitness test.⁴⁵

The countable athletically-related activities log noted the practice lasted three hours and the weight lifting session was one and one-half hour in length.⁴⁶

According to student-athlete testimony, student-athletes did not report or complain regarding unusual soreness, swelling or limited range of motion in muscles or joints. Further, the student-athletes did not report any hydration issues or urine on a scale of four or greater on the hydration chart. Finally, student-athletes did not request electrolyte supplements from the athletics training staff.

The team later was provided dinner from Chipotle.⁴⁷

Tuesday, August 16, 2016

The institution catered breakfast in an on-campus facility for the student-athletes prior to the first athletically-related activity.⁴⁸

⁴² App. 344. Beener and Jackson recalled Jackson briefed the student-athletes on hydration, athletics training protocols and reporting injuries after the first fitness test. However, numerous student-athletes remembered Jackson's briefing occurred during the team meetings that occurred prior to the start of pre-season practice. Nevertheless, whether it occurred prior to pre-season practice or on August 15, the record is clear Jackson provided the student-athletes with education in this area.

⁴³ App. 294, 344.

⁴⁴ App. 224, 294, 344.

⁴⁵ App. 224, 294, 340.

⁴⁶ App. 51.

⁴⁷ App. 344.

⁴⁸ App. 294, 344.

From approximately 9:30 am to 10:45 am CT, Crossland conducted a weightlifting and conditioning training workout. Crossland described the workout as follows:

After completing a 15 minute dynamic warm up consisting of dynamic stretching, mobility, torso activation, and light jogging, the athletes reported to the weight room for a lifting session. For players new to the TWU Strength and Conditioning program, this session was an introductory to the Hang Clean exercise as well as the Back Squat Due to the technical skills required to perform the hang clean, athletes are taught the lift in segments. On this day the athletes were taught the hang pull, which is performed by athletes holding the bar just above the knee and then explosively jumping. All athletes learning this movement performed the same number of repetitions (5), at the following weights (lbs), 45, 50, 55, and 60. Following this the athletes were taught the back squat exercise and performed the following same number of repetitions (5) at the following weights, 45, 55, 60, and 65. Participants that had previously participated in the strength and conditioning program performed the attached lifting routine. This day was designed, and explained to the athletes to be a reintroduction to the lifting. Due to the fatigue caused by conditioning sessions, athletes were told to adjust weights according to their energy levels to make all repetitions "easy." To my knowledge no athletes needed to adjust the weights due to fatigue or losses in strength from the summer session. In short this was a very easy lift with athletes going only to 75% of 1 repetition maximum on the hang clean and 50% of max on the back squat. Following this they did accessory lifts consisting of twisting lunges, push ups, and back extensions. 2 of the affected players, Student-Athlete No. 2 and Student-Athlete No. 16, received altered lifts due to back discomfort that has previously hindered their lifting. These modifications have been made in past and are necessary to ensure their recovery from these injuries. The modifications included substituting box the jumps for hang cleans and leg presses for back squat Following the lifting session each athlete took part in a 5 minute static stretching routine designed to increase range of motion for the lower body. In addition, following the lifting session athletes were informed

about proper recovery strategies and the importance of recovering from strenuous workouts.⁴⁹

After the morning session, Nicole Jackson, assistant athletics trainer, led the student-athletes through a 15-20-minute pool stretching exercise at the Pioneer Hall pool.⁵⁰ The student-athletes completed a 4- to 7-minute ice bath after the pool stretch.

The student-athletes were provided a three-hour break between the morning and afternoon sessions. The institution catered lunch from Lenny's for the student-athletes during this period.⁵¹

During the afternoon, the women's volleyball student-athletes participated in an approximate two- to three-hour volleyball practice, which was conducted by the women's volleyball coaching staff.⁵²

The countable athletically-related activities log noted the practice lasted three hours and the weight lifting session was two hours in length.⁵³

The team later was provided dinner at a Pei Wei restaurant.⁵⁴

According to student-athlete testimony, student-athletes did not report or complain regarding unusual soreness, swelling or limited range of motion in muscles or joints. However, Jackson recalled "several athletes came in with general lumbar tightness due to poor form on burpees the previous day."⁵⁵ Further, most student-athletes did not report any hydration issues or urine on a scale of four or greater on the hydration chart. However, Beener recalled the student-athletes reporting being dehydrated as early as Tuesday morning and experienced "a normal level of soreness throughout the week that is common during 2adays."⁵⁶ Beener stated Jackson "spoke to [the student-athletes] about checking their urine color every time they go to the bathroom and keeping her updated on the color."⁵⁷ Beener also noted, beginning on Tuesday, "we spent around 10 minutes before each morning and evening session stretching with bands and foam rolling."⁵⁸

⁴⁹ App. 342. Crossland calculated "a 42% decrease in the amount of weight lifted in the first week of training in 2016 when compared to 2015." App. 387.

⁵⁰ App. 52, 346.

⁵¹ App. 294, 344.

⁵² App. 294, 344.

⁵³ App. 51.

⁵⁴ App. 294, 344.

⁵⁵ App. 346.

⁵⁶ App. 292.

⁵⁷ App. 292.

⁵⁸ App. 292.

Wednesday, August 17, 2016

The institution catered breakfast in an on-campus facility for the student-athletes prior to the first athletically-related activity.⁵⁹

During the morning, the women's volleyball team was transported from the TWU campus to North Central Texas College (Gainesville, Texas) to participate in a two-to three-hour scrimmage.⁶⁰ The team was transported by an institutional operated bus. The one-way trip took at least 30-minutes.

After the scrimmage, the team was provided lunch at Fuzzy's Taco Shop in Gainesville, Texas.⁶¹ The coaching staff provided the student-athletes with the rest of the day off.⁶²

Student-athletes and institutional personnel did not report motor vehicles accidents or strange or unusual smells during the transportation to or from the North Central Texas College campus. According to student-athlete testimony, student-athletes did not report or complain regarding unusual soreness, swelling or limited range of motion in muscles or joints after the event. However, student-athletes did report hydration issues by requesting electrolyte supplements (either in liquid or pill formats) from the athletics training staff.

At approximately 3:00 pm CT, Beener, Hillary Shaffer, then-graduate assistant women's volleyball coach, Beth Jillson, head women's basketball coach, and Taylor High, assistant women's basketball coach, completed a mock run of the third fitness test.⁶³ Beener completed the test in a time of eight minutes and 30 seconds, which was last out of the four coaches.⁶⁴ Beener conducted the activity to determine the student-athletes' time limit of nine minutes for the third fitness test.⁶⁵

The team later met with the women's soccer team for dinner from Chick-fil-A and Kroger supermarket.⁶⁶

⁵⁹ App. 295, 344.

⁶⁰ App. 51, 214-216, 295, 344.

⁶¹ App. 295, 344.

⁶² App. 295.

⁶³ App. 295, 344.

⁶⁴ App. 295.

⁶⁵ App. 295.

⁶⁶ App. 295, 344.

Thursday, August 18, 2016

The institution catered breakfast in an on-campus facility for the student-athletes prior to the first athletically-related activity.⁶⁷

Jackson provided student-athletes with Elete Electrolyte Add-In to address hydration issues.⁶⁸

At approximately 8:00 am or 8:30 am CT, the women's volleyball coaching staff administered the third fitness test during an athletically-related activity. After a set of jogging, agility drills and stretching, the team performed the third fitness test. The third fitness test involved burpees, squats and triceps push-ups. During her October 3, 2016, interview with Buckner, Beener explained the features of the third fitness test:

And you started with five burpees and ten squat jumps and 15 push-ups. And then the next series would be one -- one more burpee and one less push-up so you would do six burpees, ten squat jumps, 14 push-ups. And then you would go all the way until you had ten, ten and ten. So it's six kind of series of burpees, squat jumps and push-ups⁶⁹.

Thus, by the sixth round, the student-athletes completed ten repetitions of each exercise. Overall, the student-athletes had to complete 75 triceps push-ups to pass the third fitness test in nine minutes⁷⁰:

ROUND	BURPEES	SQUAT JUMPS	PUSH-UPS
1	5	10	15
2	6	10	14
3	7	10	13
4	8	10	12
5	9	10	11
6	10	10	10
Total	45	60	75

According to her October 3, 2016, interview testimony, Beener patterned the third fitness test after a Camp Gladiator workout:

⁶⁷ App. 295, 345.

⁶⁸ App. 347.

⁶⁹ Student-athletes, Beener and Jackson testified Jackson modeled the form the women's volleyball coaching staff wanted the student-athletes to use when executing the triceps push-ups.

⁷⁰ App. 295, 344-345.

Beener: It's something that I had done in a -- in a workout. I do, like, a boot camp.

M. Buckner: Okay.

Beener: And it's something I had done before. And so when we were trying to come up with these fitness tests and we had talked to Coach Crossland, you know, he came up with the first one. And then I was, like, well, what do you think about this one, I did this in a workout? And he was, like, oh, yeah, that looks good.

M. Buckner: Okay. And what -- what type of boot camp is this?

Beener: It's called Camp Gladiator.

Further, in a written statement, Beener explained the third fitness test was based on a:

[F]itness test that Hillary [Shaffer] and I had completed at a Camp Gladiator Workout. We asked Coach Crossland what he thought of the workout and if it would be ok 2 weeks before the girls reported. He said he thought it looked good, that they should be able to complete it and to make sure the girls did hand release push-ups to make sure their chest is going all the way to the ground. we told him we were going to base our time limit on how fast Hillary and I did it and he agreed.⁷¹

Camp Gladiator is "a fitness boot camp" where participants receive "a total body workout," including "interval training, sprint and agility drills, stations, plyometrics, body weight strength drills, cardio mix, and much more."⁷²

Prior to the start of the test, Beener requested Jackson to speak with the team regarding proper form during the burpees and push-ups.⁷³ Jackson also demonstrated a burpee and push-up to model the proper technique.⁷⁴

Crossland was aware of the association between boot camp-like workouts and rhabdomyolysis. However, during his September 27, 2016, interview, Crossland

⁷¹ App. 292, 295, 318.

⁷² "Camp Gladiator Headquarters," <https://www.linkedin.com/company/camp-gladiator-headquarters>.

⁷³ App. 295, 347.

⁷⁴ App. 295, 347.

explained why he did not object to the test when Barberee and Beener presented the third fitness test to him in August 2016:

M. Buckner: The workout plan that was later going to be implemented on Thursday, did you see anything out of the ordinary?

Crossland: I recommended that it might be a little much for that time of the year. And that was basically it. I didn't, you know, say, whoa, whoa, what are you doing? It's a lot different than what they've done in the past. I think a lot of them will have difficulty doing it and we might need to think about doing something else. And that was it. So you know, our relationship still being pretty new, you don't want to be too pushy and say -- you don't want to say exactly what's on your mind. So you kind of say, you know, maybe this isn't the best idea, it's going to be pretty difficult. And we just moved on from there.

Further, Crossland believed the third fitness test was not "practical" for women's volleyball; in other words, the activity would not assist the student-athletes with enhancing their volleyball skills:

Crossland: My professional opinion is it's not practical. It's not going to help us play volleyball better. But from my point of view, it's not -- it's not helping us reach our goal of getting better and playing volleyball. It's going to be challenging to the team, but I don't think in the long run it's going to help us play better volleyball. So that was kind of what my opinion of maybe this isn't the best thing to do was kind of centered on. I thought our time would be better spent doing something else.

The coaching staff awarded the student-athletes with travel gear after the third fitness test.⁷⁵ After the completion of the test, the team jogged and stretched.⁷⁶ After the morning session, Jackson led the student-athletes through a 15-20-minute pool stretching exercise at the Pioneer Hall pool.⁷⁷ The student-athletes completed a 4- to 7-minute ice bath after the pool stretch.⁷⁸

The physical impact of the third fitness test was immediate. For example, Student-Athlete No. 11 struggled during the test. Student-Athlete No. 8 described her "arms were dead" and felt "like after a hard workout, like when your muscles just feel,

⁷⁵ App. 341.

⁷⁶ App. 296. Crossland provided the coaching staff with advice on the post-fitness test conditioning session. App. 53.

⁷⁷ App. 347.

⁷⁸ App. 347.

like, fatigued, like after any workout, like after you run and your legs are tired, that's how my arms." Other student-athlete experienced unusual soreness after completing the test.

The student-athletes were provided a three-hour break between the morning and afternoon sessions. The institution catered lunch from Weinberger's for the student-athletes during this period.⁷⁹

During the afternoon (at approximately 2:30 pm), the women's volleyball student-athletes participated in an approximate two- to three-hour volleyball practice, which was conducted by the women's volleyball coaching staff.⁸⁰

The countable athletically-related activities log noted the practice lasted three hours and the weight lifting session was one and one-half hours in length.⁸¹

According to student-athlete testimony, student-athletes began complaining of additional unusual soreness in their arms (specifically, the triceps muscle) after the morning session and into the afternoon and evening.⁸²

The team later traveled to Panera Bread for dinner.⁸³

Friday, August 19, 2016

The institution catered breakfast in an on-campus facility for the student-athletes prior to the first athletically-related activity.⁸⁴

During Friday morning, student-athletes began to experience unusual soreness and swelling in the arms.⁸⁵ For example, Student-Athlete No. 2 complained about arm swelling and limited range of motion on Friday morning. Student-Athlete No. 8 described her arms as "dead." Student-Athlete No. 4 recalled student-athletes' triceps were sore. However, Student-Athlete No. 4 and other student-athletes did not experience unusual soreness or swelling in the arms. In fact, Student-Athlete No. 4 described her arms as merely sore and Student-Athlete No. 18 did not experience major issues with her arms. Jackson provided student-athletes with Elete Electrolyte Add-In to address "sore muscles."⁸⁶

⁷⁹ App. 296, 345.

⁸⁰ App. 296.

⁸¹ App. 51.

⁸² Jackson recalled student-athletes were "sore/tired from that morning." App. 347.

⁸³ App. 296, 345.

⁸⁴ App. 297, 345.

⁸⁵ App. 207, 347.

⁸⁶ App. 347.

At approximately 8:30 am to 10:00 am CT, Crossland conducted a weightlifting and conditioning workout.⁸⁷ Crossland explained what occurred:

Athletes reported to the gymnasium to begin warming up for the lifting session. After speaking with the coaches and several athletes there was a significant amount of soreness on the upper body. Due to this, extra time was spent during the warm up focusing on upper body stretching and mobility. After the warm up I spoke with the team about the concerns of the soreness and instructed them to adjust the weights they lifted accordingly. It is my opinion that these lifting sessions done in pre-season should be light, and more focused on recovery than anything, so due to this I have no problems with them doing a little less in the weight room if it helps them be better ready to play volleyball. For the athletes new to TWU the lift was very similar to Tuesday. They were taught the Hang Clean and Front Squat exercise and the maximum amount of weight lifted by any new athlete was 65 lbs for 5 repetitions on each exercise. The returners performed the Clean and Front Squat exercises as the primary exercises for the lift. For the clean the top weight lifted was 85% for 2 repetitions. Several athletes made adjustments in weight and lifted less than this percentage due to feeling sore. For the front squat, athletes worked up to a set of 3 repetitions at 45% of their 1 repetition maximum. This weight was light enough that no changes needed to be made due to soreness. Following the Clean and Front Squat, returning players performed the following accessory exercises for 3 sets of 8 repetitions: Db Press, Inverted Row, and Abdominal Exercises. In addition, upper body stretches utilizing PVC pipe were incorporated into the workout due to the high level of soreness. Following the lift all athletes took part in foam rolling under the supervision of their coaches while waiting for the pool to open up in order to perform a stretching session in the pool with the athletic trainer.⁸⁸

In response to complaints of unusual arm soreness from numerous student-athletes, the athletics staff advised the affected student-athlete to consume additional water. In fact, during her October 5, 2016, interview, Student-Athlete No. 8 recalled Jackson or someone on the women's volleyball coaching staff informed the student-athletes "to drink water because when you're sore, you're supposed to drink water."

⁸⁷ App. 297, 345.

⁸⁸ App. 342-343.

After the morning session, the student-athletes swam laps and completed a 15-20-minute pool stretching exercise at the Pioneer Hall pool.⁸⁹ The student-athletes completed a 4- to 7-minute ice bath after the pool stretch.⁹⁰

The student-athletes were provided a three-hour break between the morning and afternoon sessions. The team traveled to Palio's Pizza Café for lunch.⁹¹

During the afternoon (at approximately 2:30 pm), the women's volleyball student-athletes participated in an approximate two- to three-hour volleyball practice, which was conducted by the women's volleyball coaching staff.⁹² Jackson noted at least five student-athletes reported soreness and tightness, but no swelling, in their arms.⁹³ Jackson provided treatment to the student-athletes.⁹⁴

The countable athletically-related activities log noted the practice lasted three hours and a two-hour weight lifting session.⁹⁵

The team traveled to Jason's Deli for dinner.⁹⁶

On Friday night, the condition of the student-athletes who had experienced unusual arm soreness or swelling earlier in the day began to worsen. For example, more student-athletes, including Student-Athlete No. 8, Student-Athlete No. 1 and Student-Athlete No. 16, began to suffer range of motion issues. The student-athletes reported their condition to Jackson, who directed the student-athletes to avoid activities requiring arm lifting.

Saturday, August 20, 2016

The institution catered breakfast in an on-campus facility for the student-athletes prior to the first athletically-related activity.⁹⁷

On Saturday morning, student-athletes continued to complain of unusual arm soreness and limited range of motion.⁹⁸ In fact, some student-athletes were unable

⁸⁹ App. 297, 347.

⁹⁰ App. 347.

⁹¹ App. 297, 345.

⁹² App. 297, 345.

⁹³ App. 347.

⁹⁴ App. 347.

⁹⁵ App. 51.

⁹⁶ App. 297, 345.

⁹⁷ App. 297, 345.

⁹⁸ App. 345.

to touch their shoulders or other body parts with their arms. Thus, student-athletes sought treatment from Jackson.⁹⁹

Jackson subsequently contacted Beener to brief her on the condition of the student-athletes.¹⁰⁰

The team conducted a morning practice.¹⁰¹ During the practice, Beener observed two student-athletes struggling to throw the volleyball during warm-up.¹⁰² Thus, Beener advised the student-athletes to stop the workout and report to Jackson.¹⁰³ Jackson advised one student-athlete to travel to the local hospital for treatment.¹⁰⁴ The student-athlete was subsequently admitted to the hospital.¹⁰⁵ The countable athletically-related activities log noted the practice lasted two and one-half hours.¹⁰⁶

The team was provided lunch from Chick-fil-A.¹⁰⁷

On Saturday night, additional student-athletes' arm conditions deteriorated. Jackson was notified by some of the student-athletes regarding their injuries.¹⁰⁸

Sunday, August 21, 2016

The team had a scheduled day-off on Sunday.

During the period of Saturday night to Sunday morning, the swelling, soreness and limited range of motion in seven additional student-athletes worsened. Six student-athletes traveled to an area hospital for treatment. The seventh student-athlete, who was home for the weekend, was admitted to a hospital near her home. The doctors' diagnoses were rhabdomyolysis from "overexertion."

⁹⁹ App. 348.

¹⁰⁰ App. 297, 348.

¹⁰¹ App. 345.

¹⁰² App. 297.

¹⁰³ App. 297.

¹⁰⁴ App. 347.

¹⁰⁵ App. 297.

¹⁰⁶ App. 51.

¹⁰⁷ App. 297, 345.

¹⁰⁸ App. 349-350.

Late August 2016: Post-discharge Activities¹⁰⁹

As the student-athletes were discharged from the hospital in late August 2016, TWU placed the student-athletes in a protocol before permitting them to resume practice and competition. The protocol was administered and monitored by the team physician. All eight student-athletes were able to return to athletics participation after completing the protocol.

During this period, institutional administrators and coaches began an immediate response to the outbreak. For example, the athletics department discussed post-outbreak athletically-related activities and the coordination of communications with the team.¹¹⁰

The institution also communicated with the parents of the hospitalized student-athletes to address several issues, including offering to reimburse the parents of their travel and meal costs associated with the student-athletes' hospitalization¹¹¹ The parents also corresponded with the institution. Some parents expressed a range of concerns, including the cause of the outbreak, the institution's investigation, communications with parents and corrective measures.¹¹²

In late August 2016, institutional administrators communicated to the parents the proper method to pay for medical expenses and costs, including the usage of the parents' and institutional insurance policies.¹¹³ During this period, the institution began developing corrective measures to address the outbreak, including incorporating rhabdomyolysis into the education program for athletics staff, coaches and student-athletes.¹¹⁴ For example, after the outbreak, the athletics training staff enhanced the institution's rhabdomyolysis education program. Further, the athletics training staff posted additional "Assess Your Hydration Status" charts throughout Pioneer Hall, including restroom stalls and other areas.

Finally, the institution began its internal investigation by conducting air quality monitoring analyses, compiling timelines, responding to media inquiries and reviewing materials documenting prior rhabdomyolysis outbreaks at other institutions.¹¹⁵

¹⁰⁹ The written statements of Kris Ring, assistant director of athletics for sports medicine, and Nicole Jackson, assistant athletic trainer, clarify the events that transpired post-outbreak. App. 346-351, 399-404. The statements and interview testimonies of Ring and Jackson are relatively consistent.

¹¹⁰ App. 54-56.

¹¹¹ App. 57-71.

¹¹² App. 57-71, 266-267.

¹¹³ App. 83-84, 93-94, 264-265.

¹¹⁴ App. 85, 95, 291.

¹¹⁵ App. 86-88, 90-92, 254-263, 312-315.

Possible Causes of Rhabdomyolysis

In addition to overexertion, a rhabdomyolysis outbreak can be caused by other factors.

Diet

During the student-athletes' interviews, dietary red flags were not identified. Moreover, the institution's provision of meals during the pre-season period decreased the likelihood of student-athletes consuming improper food or items that could cause or contribute to the rhabdomyolysis outbreak. In fact, although the student-athletes' average diets could be improved, testimony, meal plan usage and food logs do not contain any indication that the eight student-athletes' diets caused or contributed to the outbreak.¹¹⁶ Further, the record evidence does not contain any indication the eight student-athletes followed a special, crash or restrictive diet (e.g., Whole 30 diet, South Beach diet, Atkins diet) or tried intermittent fasting.

Hydration

The testimony of student-athletes and institutional personnel indicate some or all of the eight-hospitalized student-athletes, as well as other student-athletes, experienced issues with hydration. In fact, according to interview testimony, numerous student-athletes failed to consume the following minimum amounts of water and sports drinks (e.g., Gatorade, Powerade) in order to maintain proper hydration:

- Before exertion—2 to 3 hours before: 16 ounces (about 1 water bottle).
- Before exertion—15 minutes before: 8 ounces.
- During exertion—4 ounces of fluid every 15 to 20 minutes (2 to 3 large gulps).
- After exertion—16 to 20 ounces of fluid for every pound lost (1 to 1½ water bottles per pound lost).

It is possible, based on the available medical records and literature, the student-athletes' low hydration levels could have caused or contributed to the rhabdomyolysis outbreak.

¹¹⁶ App. 360-372. The team physician reviewed the student-athletes' food logs, and did not identify any trends, issues or contributing factors to the rhabdomyolysis outbreak.

Supplements

One student-athlete was identified as consuming a supplement, AdvoCare Spark. The evidence is not clear as to whether AdvoCare Spark caused or contributed to the rhabdomyolysis outbreak.

Caffeinated Beverages

The record evidence did demonstrate a few student-athletes consumed caffeinated beverages, including coffee, tea, energy drinks (e.g., Monster Energy, Red Bull) and soda, during the pre-season period. However, the available records are not clear as to whether the student-athletes' consumption of caffeinated beverages caused or contributed to a rhabdomyolysis outbreak.

Other Items

The record evidence does not include any instances of student-athletes consuming creatine or alcohol.

Sleep Schedule

Student-athletes did not report or describe sleep schedules that significantly deviated from the norm.

Medication

Student-athlete did not report taking Adderall; Hydroxycut or other fat burners; or medication for lipid control (including to treat hyperlipidemia or to control cholesterol). A few student-athletes indicated taking Advil or ibuprofen during the preseason workouts, but there is no evidence that Advil or ibuprofen caused or contributed to the rhabdomyolysis outbreak.

Exposure to Harmful Levels of Gases

The institution's air quality monitoring analyses of student-athletes' residence hall rooms and the bus used to transport the team to and from August 13-14, 2016, team-building activities and the August 17, 2016, scrimmage did not identify any contributing factors, including the existence of carbon monoxide gas above recommended indoor air quality levels, for the outbreak.¹¹⁷

¹¹⁷ App. 72-75, 81-82, 89, 233-244, 246-252, 268-273, 316, 321.

Other Factors

Student-athletes did not report: any diagnosis of electrolyte disorders or abnormalities; injuries or accidents within the past three months; car accidents during the past three months; slip and fall accidents in the past three months; injuries like stubbing toes, jamming fingers or dropping a hammer or weight on a body part; crashing into another player during a workout or contest; experiences of electric shocks during the past three months; diagnosis of an illness or disorder that affects muscles (.e.g., epilepsy, muscular dystrophy or myopathy, sickle cell); suffering from anorexia or bulimia; any surgeries, medical procedures or dental procedures in the past three months; or participation in extreme workouts, exercises or competitions (e.g., use of restrictive equipment, hypoxic masks, sauna suits) during the prior three months.

Expert Opinions

Buckner retained a medical expert, Robert H. Weiss, MD, and assigned the firm's sports medicine consultant, Timothy Neal, MS, ATC, to review the medical files of the hospitalized student-athletes. Based on the experts' review of the available information:

- Weiss opined “the inciting situation appeared to be quite strenuous exercise” and “it is apparent that all of the hospitalized athletes had extremely high—although transiently so-- CPK levels and some had increased liver function tests (“LFTs”) as well. It is not uncommon to see these LFT increases in strenuous exercise and they too might represent muscle rather than liver damage.” Further, Weiss contended at least three risk factors existed for exertional rhabdomyolysis, including: (1) untrained athlete; and (2) dehydration.¹¹⁸
- Neal contended the rhabdomyolysis outbreak involving “the eight student-athletes was a cause of performing timed and high repetition conditioning testing to relatively deconditioned student-athletes while still conducting pre-season practices that lasted approximately three hours daily (either three hours at a time, or three hours total during double sessions).”¹¹⁹

¹¹⁸ The Weiss expert report is included in the Appendix. App. 409-412.

¹¹⁹ The Neal expert report is included in the Appendix. App. 405-408.

CONCLUSION

Based on an objective and independent analysis of the available facts, Buckner provides Texas Woman's University with the findings of its external investigation. We are available to answer any questions you may have concerning the issues, allegations and findings described in the Report.

Respectfully submitted,



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