

A SURVEY OF ATHLETIC TRAINING PROGRAMS
IN KANSAS SECONDARY SCHOOLS

by

MARTIN J. RICHARDS

B. S. Biology, Iowa State University, 1979

-

A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Physical Education, Dance, and Leisure Studies

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1984

Approved by:


Major Professor

LD
2668
.R4
1984
.K52
C. 2

A11202 666609

TABLE OF CONTENTS

	Page
LIST OF TABLES	iv
Chapter	
1. INTRODUCTION: BACKGROUND OF STUDY	1
Purpose of the Study	3
Limitations of the Study	3
2. REVIEW OF LITERATURE	4
Conley Study	4
School Administrators Responsibilities	5
Physicians Responsibilities.	5
Coaches Responsibilities	6
Summary.	6
3. METHODOLOGY.	7
Design of the Survey Instrument.	7
Selection of the Sample Group.	9
Implementation of the Survey	10
Treatment of the Collected Data.	10
4. ANALYSIS OF DATA	11
Compilation of Data.	11
Discussion of Findings	11

	Page
5. SUMMARY AND CONCLUSIONS.	26
Conclusions.	27
Recommendations for Further Study.	28
REFERENCES	29
APPENDICES	
A. SURVEY QUESTIONNAIRE	A-2
B. SURVEY COVER LETTER.	A-7

TABLES

Table	Page
1. Percentage of Responding Schools by Classification	12
2. Ranges of Sport Offerings and Participation.	13
3. Results of Survey Section 2.	14
4. Results of Survey Section 3 Questions 1-6.	16
5. Results of Survey Section 3 Question 7	18
6. Results of Survey Section 4.	20
7. Results of Survey Section 5.	21
8. Results of Survey Section 6.	23
9. Results of Survey Section 7.	24

Chapter 1

INTRODUCTION: BACKGROUND OF STUDY

Participation in high school athletics in the United States has increased significantly during the past ten years. The 1978 Biannual study conducted by the National Federation of State High School Associations, indicated there were 6.4 million participants involved in various high school sport activities. This was a 61 percent increase when compared to the results of the National Federation's 1970 study, and a 13 percent gain since the 1976 study (Wojciechowski, 1979).

The substantial increase in participation may be attributed to a 60.8 percent increase in women's athletics. Over 1.7 million more women were involved in high school athletics in 1978 than in 1970. Since 1970, five of the top ten women's sports (by participation count) have increased over 1000 percent. When all women's sports are considered, a 26 percent increase is shown in the past two years. This substantial increase has placed the total number of women's participants at over 2 million (Wojciechowski, 1979).

Participation in men's athletics in this same 1970-1978 period has shown an overall increase of over 19 percent with a 6.3 percent growth since 1976. Football, a seemingly stable high school sport, added nearly 1000 schools since 1970, a 6.9 percent gain, and individual participation showed growth of over 20 percent, with 196,000 more young men being involved (Wojciechowski, 1979).

With a large increase in high school athletic participation, a proportional rise in the number of injuries sustained by these young

men and women would seem logical. Perhaps one of the most valid estimates of the high school injury rate is a survey compiled by the National Center for Education (Calvert, 1976). The survey conducted during the 1975-76 academic year, indicated that over 840,000 injuries were sustained by the participating male and female high school athletes. While this figure is large there is reason to believe that the number is much greater. Dr. David Bachman, an orthopedic surgeon and Director of the Northwestern Center for sports medicine, stated the following, "This year, 17 million will require physicians services for sports related injury. Some 600,000 players, 40 percent of them 15 to 19 will sustain football injuries. More than 200,000 high school football players will miss at least one week of action due to injuries." (Breo, 1978).

When faced with the alarming number of injuries sustained at the high school level one should become curious about the availability and quality of health care received by these young athletes. It was further found in the 1975-76 National Center for Education survey that no athletic trainers certified by the National Athletic Trainers Association were employed in Kansas high schools (Calvert, 1976). Nationwide data from this same study found only 11 percent of the public secondary schools and 15 percent of the private secondary institutions employed certified trainers (Calvert, 1976). However, the Executive Director of the Kansas Athletic Trainers Society, James D. Rudd (1981), reported that 6 certified trainers have been added at the high school level in Kansas since the 1975-1976 survey.

The initiation of employment of qualified athletic

trainers in Kansas secondary schools is indicative of the increasing awareness of sport injury care that has occurred. Yet, even in light of this awareness little is known about the participant levels and availability of facilities, equipment, supplies, and health care personnel (both school and community based) that provide athletic health care to the athletes of Kansas secondary schools.

Purpose of the Study

It was the purpose of this study to determine the status of athletic training programs in Kansas secondary schools. The following aspects were investigated to make the status determination: sport offerings and participant levels, staff, facilities and equipment, finances, physician involvement, records and manner of employment of athletic trainers in the school systems of Kansas.

Limitations of the Study

A major weakness of this study was the quality of the survey instrument. The inexperience of the researcher in survey design rendered some questions confusing to the responding athletic directors or allowed them to respond in an ambiguous manner.

Chapter 2

REVIEW OF LITERATURE

Presented in this chapter is a review of several studies, one of which examines emergency plans and transportation, primary injury care providers, and utilization of community based physicians in Nebraska high schools. The other studies reviewed examine the roles and responsibilities of school administrators, physicians, and coaches in the high school athletic health care scheme.

Conley Study (1981)

Conley (1981) investigated health care conditions in 371 Nebraska high schools during the 1980-81 school year. The survey packets were mailed to the athletic directors or superintendent of the various schools with an eighty-five (85) percent return rate. Emergency transportation policies were not available in 75 percent of the cases. It was also noted that only 24.6 percent of the schools had follow up care policies in effect.

Of the responding 314 institutions, 55 percent indicated that the head coach was solely responsible for the care of injured participants. It was found that assistant coaches, student trainers, volunteer Emergency Medical Technicians, or school nurses shared this responsibility in 35.5 percent of the schools. It was also noted that while many coaches had some fundamental first aid training, others had no training whatsoever.

Only 13 percent of the responding athletic directors or

superintendents indicated having an official team physician. More than 50 percent of the schools had no physician at athletic contests, and of the schools with a team physician only 11.8 percent had a physician at contests other than football games.

School Administrators Responsibilities

It has been found by several authors that the school administration is responsible in part for the safe participation of its student body in school athletics (Butler, 1981; Clarke, 1981; Noble, et al., 1982; Rosato and Maxwell, 1978; Whiteside and Buckley, 1981). This responsibility lies in the following areas: 1) utilizing a record keeping system of injuries (Whiteside and Buckley, 1981), 2) maintenance of qualified personnel (Rosato and Maxwell, 1978), 3) adequate budget, facilities, equipment, and supplies (Rosato and Maxwell, 1978), and 4) an insight to the results of negligence in the management of athletic injury (Noble, et al., 1982).

Physicians Responsibilities

The authors of several studies (Butler, 1981; Greensher, et al., 1979; Noble and Porter, 1982; Procter, 1980) believe that once an individual becomes a team physician he or she should attend home contests in contact sports, as well as assume a leadership role in developing a group of individuals who can perform essential life support functions (such as cardio-pulmonary resuscitation and first aid) in his or her absence (Greensher, et al., 1979).

Coaches Responsibilities

Coaches provide a large portion of the health care received by young athletes (Conley, 1981). However, they are considered by some health care researchers to be poorly prepared to act as health care providers (Conley, 1981; Kegerreis, 1979; Procter, 1980). Particularly in areas such as injury recognition, use of modalities, and rehabilitation.

Summary

In this chapter several studies were reviewed. The first examined emergency plans and transportation, primary injury care providers, and utilization of community based physicians, while other studies examined the responsibilities of school administrators, physicians, and coaches in the high school athletic health care scheme. Of the studies reviewed the Conley study (1981) was the only study found by the researcher to have any similarities to the study of the Kansas high schools. Conley (1981), however, focused primarily upon the availability of health care and the qualifications of those providers.

Chapter 3

METHODOLOGY

A questionnaire was developed as the instrument for data collection in this study. The format for the questionnaire was derived in part from an unpublished study by Anderson and Muskovich (1980) at Western Michigan University. Their study was designed to examine the administrative procedures of college and university athletic training programs in the state of Michigan. Many questions contained in the form were modified to be more applicable to the high school setting in Kansas. Several other questions were developed by the researcher to further explore the areas of concern.

Design of the Survey Instrument

In designing the survey form for this study seven areas were selected which the researcher felt related to the total athletic training program. These areas consisted of the following:

1) Sport and participant information, 2) Staff, 3) Facilities and equipment, 4) Finances, 5) Physician involvement, 6) Records, and 7) A question which asked the respondents in which of three manners a qualified athletic trainer might be employed in their district.

(See Appendix A)

In the first section information was requested to determine the number and type of sports offered in each high school as well as an estimated number of participants in each. The objective of this section was to determine a mean number of participants involved in an

average athletic program in each of the six athletic classification levels. This information could be used to determine adequate facility size, as well as essential equipment and supply requirements.

The respondents were asked in the second section to identify the primary health care personnel available within the school system and to describe their qualifications. A question was included to determine who was allowed to operate the various modalities used to treat injured athletes. This material provides an insight into the availability and quality of the health care providers in Kansas high schools.

The third section of the survey was designed to assess the available training facilities, related equipment and the operating hours of the training facility of the high schools surveyed. The information gathered in this section could allow development of a model describing the existing facilities and equipment in various sizes of school systems. Through the model determinations could be made as to what techniques of treatment and reconditioning would be best utilized by coaches and athletic trainers.

In section four of the survey questions were asked to determine where the budgeted money for athletic training materials originates, how this money is spent, when inventories are taken and who takes them. The athletic directors were also asked if the method of finance was sufficient to provide the necessary materials. The information gathered in this section could be utilized to educate trainers and coaches to various acceptable methods of deriving sufficient funds for program growth.

The fifth section of the survey dealt with the availability of physicians to the athletes participating in the athletic program. A question was also included pertaining to the presence of trained emergency personnel at home football and basketball contests. The information gathered would be used to provide an assessment of the number of Kansas high school athletes receiving immediate medical care following injury.

In section six a series of questions were put forth which were designed to evaluate the record keeping system used in the school districts surveyed. The questions inquired about daily general material as well as injury/incident report summaries on a seasonal or annual basis. The material gathered here would indicate whether or not adequate documentation was required for return to activity and to assess overall injury rates.

The final section of the survey asked the athletic directors to speculate as to how a NATA certified athletic trainer would perhaps be best employed.

Selection of the Sample Group

The questionnaire was mailed to one-third of the secondary schools in each of the six classification levels described by the Kansas State High School Activities Association. The schools included in the survey were selected by use of a random number table and an alphabetical listing of the school district, by community in each classification. The largest classification was Class 1A, which was comprised of 125 schools. To allow the best possible random selection

with the 2 digit random number chart each number pulled from the chart was doubled. Each negative number was doubled and had one added to it. This method allowed all 125 Class 1A schools to be selected with the exception of the first two schools on the alphabetized list.

Implementation of the Survey

Once the schools were selected address labels were prepared. Each envelope included a questionnaire together with a cover letter (See Appendix B) and a coded return mail envelope. The return mail envelopes were coded to ensure the placement of the data into the correct classification category.

All 121 questionnaires were mailed November 5, 1980 with a tentative cutoff for return of December 15, 1980. As the questionnaires were received they were separated by classification and the data tabulated on the appropriate work sheets.

Treatment of the Collected Data

Once the cutoff date for the return of the survey form had passed the data received was treated as deemed appropriate by one or more of the following procedures:

1. Percentage distribution by school classification.
2. Percentage distribution overall.
3. Range of the data by school classification.
4. Range of the data overall.
5. Average value of the data by school classification.

Chapter 4

ANALYSIS OF DATA

In this chapter are described: 1) the compilation of data, and 2) discussion of findings.

Compilation of Data

Each survey was received in a coded return mail envelope to insure its placement in the correct classification group. The data was then recorded from the survey form onto a master list for the respective classification.

Discussion of Findings

The return of completed surveys was 75 percent (91/121) as indicated in Table 1. The least return was in the 2A classification where 60 percent (12/20) responded. The aforementioned survey return rate leads one to perceive that athletic health care is a concern to high school athletic directors. This concern is shown particularly in the four largest classifications (6A and 5A, 100 percent; 4A, 85 percent; and 3A, 80 percent).

Table 1
Percentage of Responding Schools by Classification

Classification	Total Number of Schools	Number of Surveys Mailed	Number of Surveys Returned	Percentage of Returned Surveys
6A	32	10	10	100
5A	32	10	10	100
4A	64	20	17	85
3A	64	20	16	80
2A	64	20	12	60
1A	<u>125</u>	<u>41</u>	<u>26</u>	<u>63</u>
Overall Totals	381	121	91	75

The initial section of the survey yielded the ranges described in Table 2. The diversity in population of school districts in the state was widely represented, both by the range of the sport offerings (2-19) and the range of the number of participants (45-813). It was found that several schools offer as many or more sports and claim as many or more participants than most of the state's colleges and universities, which offer the student athletes comparatively large, well-equipped training facilities, as well as highly qualified trainers.

Table 2
Ranges of Sport Offerings and Participation

Classification	Range of the Number of Sports Offered	Range of the Number of Participants Involved
6A	12-19	350-813
5A	12-18	240-720
4A	* 4-13	* 91-308
3A	@ 2-11	@ 45-236
2A	5-10	102-169
1A	<u>5-11</u>	<u>46-177</u>
Overall	2-19	45-813

* 1 Girls school included

@ 1 Form incorrectly filled out

In survey section 2 dealing with staff, as represented in Table 3, one school reported employing an athletic trainer on a part-time basis. Of the five trainers reported in this section, only two had any teaching responsibilities in the school system. It was also indicated that only two of the five athletic trainers reported were certified by the National Athletic Trainers Association, while none of them were registered physical therapists.

It was found from the final question of this section that the primary operators of the various physical therapy modalities at the responding institutions were the coaches themselves (56 percent), followed by student trainers (43 percent) and finally the injured

TABLE 3
RESULTS OF SURVEY SECTION 2

Class	Number of Responding Survey	1			2			3			4			5			6			7					
		Yes	No	NA	Yes	No	NA	Yes	No	NA	Yes	No	NA	Yes	No	NA	Athletic Trainer	Coach	Student Trainer	Injured Athletes	Others	No Response Given			
6A	10	0	10	0	2	8	0	0	0	10	1	0	9	1	1	8	0	2	8	2	10	4	0	2	0
5A	10	1	9	0	0	10	0	0	1	9	0	0	10	1	0	9	0	1	9	0	9	8	1	0	0
4A	17	0	17	0	1	16	0	0	1	16	0	1	16	0	1	16	0	6	16	0	16	10	4	0	1
3A	16	0	16	0	1	15	0	0	0	16	1	0	15	0	1	15	0	1	15	0	15	9	3	0	1
2A	12	0	12	0	0	12	0	0	0	12	0	0	12	0	0	12	0	0	12	0	11	4	3	0	1
1A	26	0	26	0	0	26	0	0	0	26	0	0	26	0	0	26	0	0	26	0	26	8	6	0	0
N	91	1	90	0	4	87	0	0	2	89	2	1	88	2	3	86	0	5	86	2	87	43	17	2	3
N%		1.1	98.9	0	4.4	95.6	0	0	2.2	97.8	2.2	1.1	96.7	2.2	3.3	94.5	0	5.5	94.5	1.5	56	28	11	1.5	2

N = Total

athletes themselves (17 percent). Two athletic directors indicated that they themselves operated the modalities. In no survey was the school nurse indicated as an operator of such equipment.

In the third section of the survey, as shown in Table 4, it was found that 86 percent (77/90) of the responding schools with men's athletic teams maintained an athletic training room accessible to men (either men only or coeducational). Also, it was determined that 77 percent (70/90) of the responding schools with girls athletic teams provided a training room accessible to women (either women only or coeducational). Of the 14 percent (13/91) of responding schools without any training facility, eleven were in the three smallest classifications.

Further, the average square footage of athletic training facilities ranged from a low of 113 sq. ft. in class 6A to a high of 238.6 sq. ft. in class 5A. Fifty three percent of the respondents felt the athletic training facilities at their disposal were inadequate.

TABLE 4
Results of Survey Section 3 Questions 1-6

1		3		4		5		6												
Class	Number of Responding Schools	Training Room for Men	Training Room for Women	No Training Room Reported	Average Square Footage 2	3		4		5		6								
						Yes %	No %	NA	8-12	12-3	3-6	6-9	8-12	12-3	3-6	6-9				
6A	10	10	9	-	113.0	330	770	00	-	-	10	-	-	-	9	1	0	0	9	0
5A	10	9	9	1	238.6	550	440	110	1	7	7	-	-	-	7	-	-	-	8	-
4A	17	15*	12@	1	180.5	635	933	212	2	1	10	2	-	-	14	-	-	1	15	-
3A	16	14	13	2	123.0	638	956	16	1	1	13	1	-	-	13	-	-	-	15	-
2A	12	9	8	3	119.0	18	867	325	2	2	9	1	1	1	9	-	-	-	9	-
1A	26	20	19	6	132.0	935	1142	623	1	17	1	1	-	19	-	-	-	-	20	-
Overall	91	77*	70@	13		30	48	13	7	29	50	5	1	20	52	1	0	1	73	0
Overall %		56	77	14		33	53	14	7.7	31.9	54.9	5.5	1.4	27	70.2	1.4	0	1.4	98.6	0

* Girl's School

@ Boy's School

The most frequent use of the training rooms occurred at the end of the normal school day from 3 to 6 p.m. It should also be noted that the 3 p.m. to 6 p.m. time block was the most frequently used for treatment and rehabilitation as well as taping.

The lack of staffing which prevented the operation of the training rooms in the morning and pre-practice hours has to exert a negative effect on the quality of care received by the athletes. As demonstrated in Table 5, there was a surprising number of modalities available throughout all six classes to provide basic treatments of hot, cold, and strength improvement. Utilizing these basic tools a great deal of beneficial work can be accomplished; however, as noted above, those persons utilizing their equipment are ill-prepared to do so, hence the availability of modalities is not necessarily indicative of a high quality of sports health care.

TABLE 5
Results of Survey Section 3 Question 7

Class	Hydrocollator	Paraffin Bath	Whirlpool	Ultrasound	Muscle Stimulator	Ice Machine	Refrigerator	Contrast Tubs	Fitron	Swimming Pool	Free Weights	Nautilus	Universal	Paramount	Mini Gym	Orthotron	Other
6A	1	0	10	3	3	4	7	0	1	5	0	2	0	0	3	0	0
5A	0	0	10	2	1	1	0	2	1	3	8	2	7	1	3	0	0
4A	0	0	15	1	0	6	5	0	1	2	12	0	13	0	2	0	0
3A	0	0	14	3	0	2	8	0	2	0	14	2	8	0	4	0	2
2A	0	0	11	1	0	2	3	2	0	0	7	0	10	0	1	0	0
1A	0	0	22	2	0	2	9	0	2	0	21	2	14	0	2	0	0
Overall	1	0	82	12	4	17	41	4	7	10	70	8	60	1	15	0	2
Overall %	1.1	0	90	13	4.4	19	45	4	8	11	77	9	66	1.1	16	0	2.2

The most common modalities were whirlpools (90 percent) and refrigerators (45 percent). The most common strength training devices were free olympic style weights (77 percent), and the Universal-Nissen weight training machines (66 percent).

When examining the data received in the survey section on finances the first question dealt with budget sources, as represented in Table 6. The most common response was athletics department (86 percent) followed by booster clubs (9 percent) and Physical Education Department (5 percent). There was very little deviation among classes in response to this question. The second question asked if their method of finance was adequate to provide the necessary items. It was found that most athletic directors (67 percent) felt comfortable about their budget sources for athletic training items.

The athletic directors were then asked to describe how the training budget was allotted by means of percentages to the following areas: 1) permanent equipment, 2) non-permanent athletic training equipment, and 3) tape. Tape and non-permanent items were allotted a greater percentage (41 percent and 39 percent averages respectively) while permanent equipment allotments were at a somewhat lower level (20 percent average). Inventories were usually conducted on a yearly basis (60 percent) most commonly by members of the coaching staffs (66 percent).

The majority of responding athletic directors (65 percent) indicated they had no official team physician, as shown in Table 7.

TABLE 6
Results of Survey Section 4

Class	1			2			3			4				5				
	A	B	C	Yes	No	NA	A	B	C	Semester	Year	Other	NA	Salaried Trainer	Student Trainer	Coach	Other	NA
6A	85	7	8	70	10	20	18	39	43	0	80	10	10	1	1	5	2	1
5A	100	0	0	70	10	20	18.4	45.6	36	0	50	30	20	0	1	6	1	2
4A	84	0	16	82	18	0	20.5	43.6	37.7	17.6	53	29.4	0	0	3	14	4	0
3A	80	5	15	81	13	6	14.5	37.3	48.2	12.5	56.2	31.3	16.7	0	1	12	5	0
2A	91	8	1	50	33	17	2.5	47.5	50.0	25	33.3	25	7.7	0	1	7	3	2
1A	75	10	15	58	31	11	28.4	33.2	38.4	3.8	77	11.5	7.7	0	2	22	2	2
Overall	86	5	9	67	21	12	20	39	42.3	9.8	60.9	21.7	7.6	1	9	66	17	7

TABLE 7
Results of Survey Section 5

Class	1				2			3			4			5			6		
	NO	YES%	NO%	NA%	YES%	NO%	NA%	YES%	NO%	NA%	CS%	DS%	NA%	YES%	NO%	NA%	YES%	NO%	NA%
6A	10	70	20	10	70	20	10	0	90	10	10	70	20	70	20	10	0	90	10
5A	10	40	50	10	40	40	20	0	80	20	10	60	30	70	20	10	0	90	10
4A	17	41	59	0	41	51	18	0	82	18	12	59	29	78	17	5	17	83	0
3A	16	25	75	0	18.75	37.5	43.75	0	56	44	25	62.5	12.5	69	31	0	19	81	0
2A	12	0	83	17	9	36	55	0	54.5	50	50	50	0	25	50	25	8	67	25
1A	26	15	78	7	15	27	58	0	42	58	5	19	76	69	31	0	19	81	0
Overall	91	28	65	7	29	33	38	0	63	37	21	79	38.5	66	28.5	5.5	13	82	5

It was not surprising to note that of those schools with an official team physician the 5A and 6A classifications were the largest (40 percent and 70 percent respectively). Of the team physicians covering contests, 79 percent donated their services. It was also found that most schools (66 percent) had an emergency vehicle with Emergency Medical Technicians at football contests.

As shown in Table 8, a surprisingly large number of school districts (29 percent) required no written record of athletic injury.

TABLE 8
Results of Survey Section 6

Class.	1						2					3									
	I.L.F.	O.T.L.	C.D.I.R.	MED. R.	P.I.R.	NA	NO	YES%	NO%	NA%.	NO	#	%	SUR.	%	REC.	%	OTHER	%	NA	%
6A	9	1	0	4	5	0	10	60	40	0	6	4	50	6	75	2	25	0	0	4	20
5A	6	1	2	4	5	2	10	40	50	10	5	4	80	3	60	4	80	0	0	5	50
4A	5	1	0	4	4	7	17	6	94	0	1	0	0	1	100	1	100	0	0	16	94
3A	4	2	1	7	7	3	16	38	62	0	4	2	50	4	75	0	0	0	0	12	75
2A	2	0	1	3	2	5	12	25	75	0	12	2	67	1	33	0	0	1	25	10	75
1A	5	1	3	14	10	9	26	23	77	0	5	4	57	5	71	5	71	0	0	21	73
Overall	34	6.5	7.5	45	36	29	91	28.6	70.3	1	28	16	64	19	67.8	12	43	1	3.5	63	69

When schools did utilize some type of written record, a referral form to the family physician (45 percent) was the most commonly used. This was followed by injury reports to the parents (36 percent) and a standardized Individual Injury Form (34 percent). It was further noted that only slightly more than one fourth of the athletic directors (28 percent) required a summary of athletic injuries and illness. When a summary was required the most common components were the number of athletes served (64 percent) and a survey of the types and numbers of injuries incurred (67 percent).

The final survey question asked the athletic directors to speculate as to the manner in which a certified athletic trainer would be employed in their school district. Table 9 perceives that the most

Table 9
Results of Survey Section Seven

Class	N	A	B	C	OTHER	NA
6A	9	1	7	1	0	0
5A	8	0	3	5	0	0
4A	13	0	8	5	0	0
3A	16	0	8	8	0	0
2A	12	0	6	4	0	0
1A	27*	0	18*	4*	1	4
Overall	92	1	49	28	1	13
Overall %		1.1	53.3	30.4	1.1	14.1

*One survey had two responses marked

commonly selected response was through a full-time teaching salary with coaching supplement for athletic training (53.3 percent), followed by part-time teacher, part-time trainer (30.4 percent).

Chapter 5

SUMMARY AND CONCLUSIONS

The purpose of the study was to determine the status of athletic training programs in Kansas secondary schools.

A questionnaire was developed as a result of the literature review and personal knowledge as the instrument for data collection in the study. The format and questions for the questionnaire was in part derived from an unpublished study by Anderson and Muskavian (1980). In designing the survey the researcher selected seven areas relating to the total athletic training program. The areas consisted of the following: 1) sport and participant information, 2) staff, 3) facilities and equipment, 4) finances, 5) physicians, 6) records, and 7) a question which asked the respondents in which of three manners a qualified athletic trainer might be employed in their school district.

The questionnaire was mailed to one-third of the secondary schools in each of the six classification levels described by the Kansas State High School Activities Association. The schools included in the survey were selected by use of a random number table and an alphabetical listing of the school districts by community in each classification.

Once the cutoff date for the return of survey forms had passed the data received was treated by the researcher through one or more of the following procedures:

1. Percentage distribution by school classification.

2. Percentage distribution for the overall population.
3. Range of the data by school classification.
4. Range of the data for the overall population.
5. Average value of the data by school classification.

Conclusions

The following conclusions regarding the status of athletic training programs in Kansas secondary schools are supported by the data collected in this study: (1) the wide range of sport offerings and number of participants involved in Kansas high school sport makes blanket decisions such as mandatory employment of athletic trainers in each district a financial improbability; (2) a small number of schools had made a commitment to improved athletic health care by adding an individual to their staff designated as the athletic trainer; (3) a large number of schools have developed areas as athletic training rooms and have at least a minimal amount of equipment and supplies to enhance the athletes return to participation in a healthy manner; (4) the majority of athletic directors felt that athletic trainers would best be employed as a teacher-trainer in the same manner that a school district would hire an individual to be a teacher-coach; (5) there is a lack of medical or allied health care specialists offering primary and/or secondary care to the majority of students in this sample group on a daily basis; and (6) there is also a lack of documentation on the part of the athletic staff and administration to ensure that athletes who return to participation do so under medical sanction. These latter two concerns tend to cause one to question the moral and ethical

questioning and/or thought which has gone into the planning and implementation of Kansas high school athletic programs.

Recommendations for Further Study

Three major areas present themselves for examination from the finding of this study. They are as follows:

1. The coaching staffs of the various districts seemed to provide the bulk of the primary and secondary care in relationship to athletic participation. Further research could perhaps delineate some appropriate changes in the educational backgrounds of coaches to enable them to provide better quality care.
2. A large group of schools were identified with little or no assistance from physicians or allied health care professions. Further study could be utilized to design the best method of involving these professionals in the high school athletic program to enhance health care for athletic injury.
3. The lack of documentation of athletic injury is of concern. Further study could be utilized to design and implement a model record system to be used at the school, district or statewide level.

REFERENCES

- Anderson, D. and B. Muskovich. A Survey of Administrative Policy in the Athletic Training Programs of Various Colleges and Universities. An unpublished masters report. Western Michigan University, April, 1980.
- Breo, D. School of Hard Knocks Tackles Player Injury. Parade, The Sunday Newspaper Magazine; October 29, 1978, (15-18).
- Butler, P.S. Administering the Schools Athletic Training Program. National Association of Secondary School Principals Bulletin; 65 (446) 12-15, September 1981.
- Calvert, R.J. Athletic Injuries and Deaths in Secondary Schools and Colleges, 1975-1976. A report on the survey mandated by Section 826 of Public Law; 93-380, National Center for Education, 1976.
- Clarke, K.S. Expectations for Health Supervision of School Sports Programs. National Association of Secondary School Principals Bulletin; 65 (446) 1-3, September 1981.
- Conley, L.M. What Price Protection? Are High School Athletes Receiving Adequate Injury Care? The First Aider; 51 (6) 1,8, February 1981.
- Greensher, J. et al. First Aid for School Athletic Emergencies. New York State Journal of Medicine. 79 (7) 1058-62, June 1979.
- Kegerreis, S. An Economic Alternative. Journal of Physical Education and Recreation; 50 (7) 70-71, September 1979.
- Noble, H.B. and Marianne Porter. The Role of the Team Physician in School Athletics. Illinois Medical Journal; 161 (2) 112-113, February 1982.
- _____, et al. The Athletic Trainer: Their Place In The Health Care System. Illinois Medical Journal; 162 (1) 41-43, June 1982.
- Proctor, A. The Medical Responsibilities of the Athletic Trainer. North Carolina Medical Journal; 41 (8) 519-520, August 1980.
- Rosato, F. and L. Maxwell. High Schools Can Afford Athletic Trainers - Here's How. National Association of Secondary School Principals Bulletin; 62 (417) 85-9, April 1978.
- Rudd, J.D. Personal Interview, January 1981.
- Whiteside, P. and W.E. Buckley. How to Reduce Injury Incidence in High School Sports. National Association of Secondary School Principals Bulletin; 65 (446) 30-33, September 1981.

Wojciechowski, D. Editor. Interscholastic Athletic Participation
Increases. News release from National Federation of State High
School Associations, Federation Plaza, Elgin, Illinois. pg. 1-10,
1979.

APPENDIX A
SURVEY QUESTIONNAIRE

ATHLETIC TRAINING SURVEY

Directions: Please answer the following questions to the best of your knowledge. If a question does not apply, just leave it blank. Once this survey is completed, please place it in the enclosed envelope and return at your earliest convenience.

I. General Information

1. Please indicate the number of athletes participating in each sport:

<input type="text"/> Football - 11 man <input type="text"/> Football - 8 man <input type="text"/> Boy's Basketball <input type="text"/> Girl's Basketball <input type="text"/> Boy's Track <input type="text"/> Girl's Track <input type="text"/> Boy's Cross Country <input type="text"/> Girl's Cross Country <input type="text"/> Wrestling <input type="text"/> Boy's Gymnastics	<input type="text"/> Girl's Gymnastics <input type="text"/> Girl's Volleyball <input type="text"/> Boy's Swimming <input type="text"/> Girl's Swimming <input type="text"/> Boy's Baseball <input type="text"/> Girl's Softball <input type="text"/> Boy's Tennis <input type="text"/> Girl's Tennis <input type="text"/> Boy's Golf <input type="text"/> Girl's Golf
---	--

II. Staff

1. Does your school employ a full-time salaried athletic trainer?
Yes No
2. Does your school employ a part-time salaried athletic trainer?
Yes No
3. Does your full-time salaried athletic trainer have any teaching responsibilities?
Full-time Part-time
4. Does your part-time athletic trainer have any teaching responsibilities?
Full-time Part-time
5. Is your salaried athletic trainer certified by the National Athletic Trainers Association?
Yes No
6. Is your salaried athletic trainer a registered physical therapist?
Yes No

7. Who is allowed to operate the physical therapy equipment (whirlpool, heating packs, etc...) to give treatments to injured athletes?

Salaried Athletic Trainer _____ Coaches _____
 Student Trainers _____ Injured Athletes _____
 Others _____

III. Facilities and Equipment

- How many training rooms do you have for the following?
 Men _____ Women _____ Coed _____
- Approximately how much actual floor space is there in your training room(s)?
 _____ Sq. Ft.
- Do you consider this amount of space adequate for the number of athletes utilizing it?
 Yes _____ No _____
- What are the approximate operating hours of your training room(s)?
 8:00 am - 12:00 pm _____ 12:00 pm - 3:00 pm _____
 3:00 pm - 6:00 pm _____ 6:00 pm - 9:00 pm _____
- What is the most frequently used time slot for treatment and rehabilitation?
 8:00 am - 12:00 pm _____ 12:00 pm - 3:00 pm _____
 3:00 pm - 6:00 pm _____ 6:00 pm - 9:00 pm _____
- What is the most frequently used time slot for taping?
 8:00 am - 12:00 pm _____ 12:00 pm - 3:00 pm _____
 3:00 pm - 6:00 pm _____ 6:00 pm - 9:00 pm _____

Check the modalities that you have in your training room(s). If you have more than one of each type of equipment, please include the number.

_____ Hydrocollator	_____ Fitron or other exercise bicycle
_____ Parafin Bath	_____ Swimming Pool
_____ Whirlpool	_____ Free Weights
_____ Ultrasound	_____ Nautilus
_____ Muscle Stimulation	_____ Universal
_____ Steam Bath	_____ Paramount
_____ Ice Machine	_____ Mini Gym
_____ Refrigerator	_____ Orthotron
_____ Contrast Tubs	

IV. Finances

1. Please indicate by approximate percent how much of your total support for athletic training comes from each of the following sources?

A. Athletic Department _____ %

B. Physical Education _____ %

C. Other Sources _____ %

TOTAL = 100 %

2. Is this method of finance satisfactory to provide the necessary items?

Yes _____ No _____

If no, please explain. _____

3. What percentage of your athletic training budget is allotted for the following areas.

A. Permanent athletic training equipment _____ %

B. Non-permanent athletic training equipment (ie. ointment, band-aids) _____ %

C. Tape _____ %

TOTAL = 100 %

4. When is the inventory of athletic training supplies and equipment taken?

Each semester _____ Yearly _____ Other (be specific) _____

5. Who takes this inventory of supplies and equipment?

Salaried Trainer _____ Student Trainer _____ Coaches _____
Other (be specific) _____

V. Physicians

1. Does your athletic program have an official team physician?

Yes _____ No _____

2. Does this physician attend all contact sport contests?

Yes _____ No _____

3. Does this physician attend all contact sport practice sessions?
Yes _____ No _____
4. How is this initial medical care obtained?
Contracted Service _____
Donated Service _____
5. Is an emergency vehicle with trained E.M.T. personnel present at every home football contest?
Yes _____ No _____

Basketball contest?
Yes _____ No _____

VI. Records

1. Do you require the use of the following by athletic trainers, coaches, student trainers or others. (Check all that apply).
 _____ Individual Injury Form
 _____ Daily Treatment Log
 _____ Coaches Daily Injury Report and Workout Status
 _____ Medical Referral to Family Physician
 _____ Injury Report to Parents of Athletes
2. Do you require a summary of athletic injuries & illnesses from athletic trainers, coaches or student trainers?
Yes _____ No _____
3. If yes, check the things you normally require in your annual report.
 _____ Number of Athletes Served
 _____ Survey of Number and Type of Injuries Incurred
 _____ Recommendations for Program Improvement
 _____ Other (be specific) _____

VII. If your school district were to employ a certified athletic trainer in which of the following manners would he/she be employed?

- _____ A. Full-time salary for athletic training duties only.
- _____ B. Full-time teaching salary with coaching supplement for athletic training duties.
- _____ C. Part-time teacher, part-time athletic trainer.

APPENDIX B
SURVEY COVER LETTER

K-State Wildcats
Football Office
2201 Kimball Avenue
Manhattan, Kansas 66502
913-532-5876

November, 1980

Dear Athletic Director:

At Kansas State University interest is being shown in developing an athletic training specialization through the Department of Health, Physical Education and Recreation. As the Graduate Assistant Football Trainer at Kansas State I, for one, wish to insure that this program establishes goals which will adequately educate young people to provide the necessary athletic training needs.

Being in pursuit of my Masters Degree at Kansas State I have selected this problem for my graduate report. I have developed this survey form to evaluate athletic training and medical care available to high school athletes in Kansas. The form is being sent to a random selection of schools in all six classifications.

Realizing your time is very valuable this questionnaire has been reduced to as compact a form as possible. The five to ten minutes necessary to complete this survey will be greatly appreciated by myself, the Department of Health, Physical Education and Recreation of Kansas State University and ultimately the high school athletes of the State of Kansas.

Thank you for your prompt and accurate reply.

Respectfully yours,



Martin J. Richards, A.T., C.
Asst. Football Trainer
Phone: (913) 532-5880

MR/rkh

Encl:

A SURVEY OF ATHLETIC TRAINING PROGRAMS
IN KANSAS SECONDARY SCHOOLS

by

MARTIN J. RICHARDS

B. S. Biology, Iowa State University, 1979

-

AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Physical Education, Dance, and Leisure Studies

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1984

Abstract

Richards, M. J., A Survey of Athletic Training Programs in Kansas Secondary Schools. M. S. Physical Education, 1984, Professor R. A. Wauthier.

The instrument utilized was a questionnaire designed to examine the following aspects of the total athletic training program; sport offering and participation levels, staff, facilities and equipment, finances, physician involvement, records, and manner of potential employment of athletic trainers in the school districts. One hundred twenty one athletic directors were surveyed with a return rate of seventy five percent (n=91). Several conclusions can be derived from this survey. Athletic health care is a concern to Kansas athletic directors as represented by the survey return rate. The wide range of sport offerings and participation makes generalized decisions such as employment of athletic trainers mandatory in all districts a financial improbability. A small number of schools had made a commitment to add an individual to the athletic staff designated as the athletic trainer. A large number of schools had developed athletic training rooms for men and women and have at least minimal amounts of equipment and supplies to enhance athletic health care. The majority of athletic directors felt trainers could best be employed as teacher-trainers much like coaches. Finally, two areas of concern become apparent. First, there is a lack of medical or allied health specialists offering primary or secondary care to the majority of student athletes in this sample. Secondly, there is a lack of documentation on the part of the athletic staff and administration to ensure that athletes who return to participation do so under medical sanction.