DISQUALIFYING MEDICAL CONDITIONS FOR FOOTBALL
PARTICIPATION IN SOUTH CENTRAL KANSAS
CLASS B HIGH SCHOOLS

A Field Report
Presented to
The Graduate Division
Drake University

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

by
William R. Wilson
August 1967
DISQUALIFYING MEDICAL CONDITIONS FOR FOOTBALL
PARTICIPATION IN SOUTHWEST CENTRAL KANSAS
CLASS B HIGH SCHOOLS

by

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CHAPTER I

INTRODUCTION

Each year most high schools require all athletes to undergo a physical examination before they are allowed to participate in athletic competition. The examination should be thorough, so that no condition will be overlooked.

I. THE PROBLEM

Statement of the problem. It was the purpose of this study to determine the medical conditions which team physicians consider to be justification for disqualification in football.

Importance of the study. Football is a main sport in most high schools. Body contact sports, such as football, account for the highest number of serious and fatal injuries in high school athletic competition.\(^1\) Measures must be taken to prevent injury and permanent impairment. Too often, when matters are taken for granted, a minor condition can be ravaged and may result in irresponsible damage to the student.

A boy in Westchester County, New York, dropped dead of a congenital heart defect during the first football practice. The usual physical examination would not have discovered this condition.\(^2\) A more


through examination should be given. There should be a careful eva-
uation of each athlete's health and the proper recommendations given to
those failing to pass the examination.

The team physician should have absolute authority in determining
the physical fitness of the athlete who wishes to participate. His
judgment is based on medical knowledge and knowledge of psychophysio-
logical demands of the sport. If participation presents certain hazards
or may prove deleterious to the health of the athlete, either at present
or in the future, he will disqualify him. ¹

II. DEFINITION OF TERMS

Acute. An acute condition is usually brief and severe.

Acute heart disease. An acquired heart disease is noninheri-
bled. It develops after birth.

Albinuria. Albinuria is the occurrence of albumin in the
urine. This could point to a disturbance of the kidneys.

Aortic insufficiency. Aortic insufficiency is the abnormal
closure of the aortic valve resulting in the regurgitation of blood to
the left ventricle.

Aortic stenosis. Aortic stenosis is the abnormal narrowing of
the aorta, usually as a result of rheumatic fever or other diseases.

¹Carl E. Klaes and Daniel D. Angheim, Modern Principles of Ath-
Articulation of the spine. Articulation of the spine refers to the joints between the vertebrae of the spine.

Asthma. Asthma is a disease characterized by a difficulty in breathing and a sense of constriction in the chest.

Boil. A boil is a painful, inflammatory sore forming a central core. It is caused by a microscopic infection.

Carditis of any etiology. Carditis of any etiology refers to the inflammation of the pericardium, myocardium, or endocardium resulting from any cause.

Chronic. A chronic condition has a long duration, recurring frequently.

Coarctation of aorta. Coarctation of the aorta is the straightening or the pressing together of the aortic walls.

Congenital. A congenital condition exists at or from birth.

Convulsive disorder. Convulsive disorders are caused by violent involuntary muscular contractions of the body.

Cryptorchism. Cryptorchism is the failure of one or both of the testes to descend into the scrotum.

Cyanotic heart disease. Cyanotic heart disease is caused by imperfectly oxygenated blood, resulting in a blueness of the skin.
Diabetes. Diabetes impairs the ability of the body to use sugar and causes the sugar to appear abnormally in the urine.

Dystonic. Dystonic is the abnormal tone of any tissue.

Epilepsy. Epilepsy is a disorder of the nervous system, usually characterized by fits of convulsions that end with loss of consciousness.

Epiphyseal diseases. Epiphyseal diseases are inflammations of cartilage which separate from the main bone.

Femoral hernia. A femoral hernia is a protrusion of an organ or tissue through an opening in its surrounding wall. This is in the area of the thigh.

Furuncles. Furuncles are the same as boils.

Hemophilia. Hemophilia is a condition in which the clotting time of the blood is prolonged, producing a strong tendency to bleeding. This is usually hereditary.

Hemorrhagic diseases. Hemorrhagic diseases result in the escape of blood from the blood vessels.

Hepatitis. Hepatitis is an inflammation of the liver.

Hydrocele. Hydrocele is a condition resulting from the accumulation of serous fluid, usually around the testis.

Hypertension. Hypertension is a condition due to abnormally high
blood pressure.

**Impetigo.** Impetigo is a contagious skin disease marked by a superficial pustular eruption.

**Infectious mononucleosis.** Infectious mononucleosis is an acute infectious form of mononucleosis characterized by sudden fever, benign swelling of the lymph nodes, and an increase in the blood stream of leucocytes having only one nucleus.

**Inguinal hernia.** An inguinal hernia is a protrusion of an organ or tissue through an opening in the area of the groin.

**Jaundice.** Jaundice results from the presence of bile in the blood, producing a yellow pigmentation of the skin.

**Kyphosis.** Kyphosis is sometimes called hunchback or humpback. It is due to a convex curvature of the spine.

**Mitral stenosis.** Mitral stenosis is the abnormal narrowing of the mitral valve, obstructing the free flow of blood from the atrium to the ventricle.

**Murmur (Functional).** A functional heart murmur is an abnormal change in the function, but not the structure of the heart. The sound results from the abnormal opening and closing of a valve or the flow of the blood.

**Murmur (organic).** An organic heart murmur is due to an abnormal
change in the structure of the heart.

**Nystagmus.** Nystagmus is sometimes called nearsightedness. The light rays are focused in front of the retina.

**Nephritis.** Nephritis is an inflammation of the kidneys.

**Nephrotic syndrome.** Nephrotic syndrome represents a group of symptoms which indicate the presence of a kidney disease.

**Osteomyelitis.** Osteomyelitis is a purulent inflammation of the bone and bone marrow.

**Pulmonary insufficiency.** Pulmonary insufficiency indicates the abnormal functioning of the valves in the pulmonary tubes.

**Purpura.** Purpura is characterized by purple spots on the skin and mucous membrane, caused by the extravasation of blood.

**Radial mastoidectomy.** Radial mastoidectomy is the removal of part of the mastoid bone, by cutting in the direction of the radius from the center outward.

**Renal disease.** Renal disease indicates a disease of the kidneys.

**Respiratory infections.** Respiratory infections would affect the organs which exchange gases with the environment.

**Rheumatic fever.** Rheumatic fever is a serious disease characterized by fever, swelling and pain in the joints, sore throat, and
cardiac involvement.

Rheumatic myocarditis. Rheumatic myocarditis is characterized by inflammation of the myocardium, as a result of rheumatic fever. There is usually some damage to the heart.

Scoliosis. Scoliosis is a condition caused by a lateral curvature of the spine.

Simple mastoidectomy. A simple mastoidectomy is the removal of part of the mastoid bone, usually for draining an infection. It is not as complex as the radical mastoidectomy.

Spondylolisthesis. Spondylolisthesis is the forward displacement of the lumbar vertebrae with a consequent contraction of the pelvis.

Trauma. A trauma could indicate any body injury or wound.

Tuberculosis. Tuberculosis is an infectious disease that affects almost any tissue in the body, especially the lungs.

Varicocele. Varicocele is a varicose condition of the spermatic veins of the scrotum.

Virus pneumonia. Virus pneumonia is an acute infection of the lungs caused by a virus.

III. PROCEDURE

The first step in this study was to survey various literature for
conditions that medical authorities consider to be disqualifying for participation in contact sports. The recommendations of the American Medical Association and information from the review of literature were used to construct a questionnaire. The questionnaire was organized according to the following conditions: (1) cardiovascular; (2) hernia; (3) neurological; (4) genital; (5) orthopedic; (6) renal; (7) musculoskeletal; (8) spleen; (9) liver; (10) ear; (11) eye; (12) respiratory; and (13) general. A cover letter was also constructed.

For validation, the questionnaire was sent to the football coaches of five class 3 high schools in Northeast Kansas. The football coaches were asked to have their team physicians complete the questionnaire and return it to the examiner. A stamped, self-addressed envelope was provided for their convenience. No revision of the questionnaire was necessary.

The questionnaire was then sent to forty class 1A schools in East Central Kansas. The coaches were asked to have their team physicians fill out the questionnaire and return it in the enclosed, self-addressed envelope, which was provided for their convenience.

After two months of delay, a follow-up letter was sent to the coaches to return the original questionnaire. If the reply had not been received, another reminder was mailed. This procedure was repeated four times.

Finally, 93 questionnaires were in the hands of the examiners on June 15, 1960.
A summary of the study was made and conclusions presented. Recommendations were made, based on the conclusions reached through an appraisal of the study.

IV. LIMITATIONS OF THE STUDY

The study was limited to forty class B high schools in South-Central Kansas. Class B high schools have an enrollment of one hundred thirteen to two hundred seventy students.

Due to the limited return (fifty per cent), the information presented represented only the views of the respondents and will not represent the views of all physicians. The low per cent return could have resulted because of the following reasons: (1) the football coach failed to give the questionnaire to the physician; (2) the physician failed to fill out the questionnaire; and (3) the town did not have a physician.

The tabulated data do not always equal one hundred per cent of the total respondents. This is due to some physicians failing to answer all the questions on the questionnaire.
CHAPTER II

REVIEW OF THE LITERATURE

More information has been written on the medical examination than the actual disqualifying conditions. Many of the disqualifying conditions were found in the literature dealing with the medical examination. This chapter will be devoted to three aspects of the study. The first of these will be a brief review of the medical examination. The second will be an exploration of the conditions which medical authorities consider to be disqualifying for football. The third will be a review of the recommendations presented by the American Medical Association.

I. THE MEDICAL EXAMINATION

The Committee on the Medical Aspects of Sports of the American Medical Association recommends that all students taking part in vigorous athletic activities have a health examination prior to participation each year. This examination should be designed to elicit the general state of health, to disclose any defects which might contraindicate participation, and to uncover any conditions that might predispose to injury.¹

The Committee on the Medical Aspects of Sports stated that:

The health examination is a basic part of the preparation of the

athlete for sports participation. Medical evaluation goes beyond the health examination, however, to assure each athlete the best possible health guidance. Emphasis is to be placed upon individual needs and capabilities with the ultimate goal of furthering the health and development of youth.¹

An adequate physical examination should do three things: (1) protect the participant; (2) protect the school authorities in case of an unusual occurrence; and (3) maintain higher and safer standards for athletic competition.²

Most states require that an athlete pass a physical examination before he is allowed to participate in any activity. Kansas, for example, has a Physical Examination-Parental Consent Rule which states:

No student is eligible to represent his high school in interschool athletics until there is on file with the superintendent or principal a signed statement by a practicing physician certifying that the student has passed an adequate physical examination and is physically fit to participate in interschool athletics. The statement must also be signed by the parents.³

II. DISQUALIFYING CONDITIONS

There are various opinions as to which conditions should disqualify an athlete from participation in sports. A condition which is disqualifying for one sport, is not necessarily disqualifying for


another sport. Only those conditions which are disqualifying for football are presented in this chapter.

George and Lehmann recommended that an athlete be prohibited from play for any of the following:

1. Loss of a paired organ.
2. Presence of any acute infection.
   a. Respiratory infections.
   b. Skin infections.
3. Hernia, cryptorchism, and recent loss of weight.
4. Presence of sugar or blood in the urine.
5. Cardiac conditions.
   a. Mitral stenosis.
   b. Aortic stenosis.
   c. Cyanotic congenital heart disease.
   d. Organic heart murmur.
   e. Hypertension.
6. Orthopedic conditions.
   a. Bone and joint problems.
   b. Congenital spina bifida.
   c. Abnormalities of articulation in the spine.
   d. Adolescent kyphosis.

Klefs and Arneim stated that:

Various cardiovascular, neurological, orthopedic, and respiratory abnormalities or irregularities that may be aggravated by athletic competition or predispose the participant to injury should be considered disqualifying conditions.

Dayton listed various conditions which he considered to be disqualifying and made comments on each condition:

1. Heart conditions - A full diagnosis is needed since all conditions are not disqualifying.
2. Hypertension - Hypertension was found to be secondary to kidney infections.
3. Handicapped - If one of a pair of organs is missing, the boy

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2. Klefs and Arneim, loc. cit.
1. Acute infectious diseases.
   a. Hepatitis
   b. Infectious mononucleosis
   c. Nephritis
   d. Nephrotic syndrome
   e. Acute rheumatic myocarditis
   f. Tuberculosis
2. Congenital systemic disease
   a. Diabetes
   b. Hereditary hemorrhagic diseases
   c. Hemophilia
3. Acquired systemic diseases
   a. Hypertension
   b. Occlusion of the aorta
   c. History of bladder and kidney stones
   d. Previous heart surgery
4. Orthopedic abnormalities
   a. Spondylolisthesis
   b. Congenital deformities
   c. Chronic osteoarthritis
   d. Acute osteoarthritis
5. Premature kyphosis and scoliosis
6. Erythematous diseases
7. Neurologic disorders
   a. Congenital dystonic
   b. Epilepsy

Ryan concludes that the following conditions are medical causes for disqualification from contact sports, such as football.
c. Severe concussions or skull fractures
d. Deafness
e. Blindness
f. Convulsive disorders

General considerations
a. Loss of any paired organ
b. Physical immaturity
c. Growth retardation
d. Asthma
e. Heart murmur
f. Radial mastoidectomy
g. Simple mastoidectomy
h. Jaundice
i. Skin infections
j. Enlarged liver
k. Enlarged spleen
l. Hydrocele
m. Varicocele

The myth of "athletic heart" has been exploded long ago, but the belief persists in some circles. There is no evidence to show that exercise has ever damaged a healthy heart in a properly conditioned athlete. The heart, like any other muscle of the body, becomes larger as a result of physical exercise. The heart, weakened by disease, in some cases is dilated or ballooned-out, but this has no relationship to the large heart of the athlete, the walls of which, as a result of exercise, have been strengthened and built up in muscular bulk.²

III. DISQUALIFICATION OF THE ATHLETE

MEDICAL ASSOCIATION

Disqualification does not necessarily imply restriction from

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all sports at that time or from the sport in question in the future.

If the decision is disqualification, however, the physician vested by the school with the authority to disqualify should not be overruled by any other person. This is a direct and unavoidable responsibility and needs the full support of the institution and all the personnel involved.¹

The American Medical Association recommends that the following conditions should definitely disqualify a boy from contact sports:

I. General
   A. Acute infections
      1. Respiratory
      2. Genitourinary
      3. Infectious mononucleosis
      4. Hepatitis
      5. Active rheumatic fever
      6. Active tuberculosis
      7. Boils
      8. Furuncles
      9. Impetigo
   B. Obvious physical inactivity in comparison with other competitors
   C. Obvious growth retardation
   D. Congenital disease
      1. Hemophilia
      2. Furfura
      3. Other hereditary tendencies
      4. Diabetes, if inadequately controlled
   E. Psychiatric

II. Eyes
   A. Absence or loss of function of one eye
   B. Severe myopia

III. Ears
   A. Significant impairment

IV. Respiratory
   A. Tuberculosis (active or under treatment)
   B. Severe pulmonary insufficiency

V. Cardiovascular

¹American Medical Association, op. cit., p. 1.
A. Vitral stenosis
B. Aortic stenosis
C. Aortic insufficiency
D. Coronary artery disease
E. Cardiac heart disease
F. Recent carditis of any etiology
G. Hypertension on organic basis
H. Previous heart surgery for congenital or acquired heart disease

VI. Liver
A. Enlarged liver

VII. Spleen
A. Enlarged spleen

VIII. Hernia
A. Recurrent hernia
B. Femoral hernia

IX. Musculoskeletal
A. Symptomatic abnormalities or inflammations
B. Functional inadequacy of the musculoskeletal system, congenital or acquired, incompatible with the contact or skill demands of the sport

X. Neurological
A. History or symptoms of previous serious head trauma or repeated concussions
B. Convulsive disorder not completely controlled by medication
C. Previous surgery on head or spine

XI. Trauma
A. Absence of one kidney
B. Urinary disease

XII. Visceral
A. Absence of one testicle
B. Undescended testicle
CHAPTER III

PRESENTATION OF DATA

The study was designed to determine the medical conditions which team physicians considered to be justification for disqualification in football. In order to secure data about the disqualifying conditions, a questionnaire was sent to forty class B high schools in South-Central Kansas. The football coaches were asked to have their team physicians fill out the questionnaire. The responses were tabulated. This chapter will present these data.

Due to the limited response (50 per cent), the results were only the views of the respondents and were not taken to be the views of all physicians. The percentages used were only those of the responding physicians.

Table I shows that at least 70 per cent of the respondents would disqualify a boy for most of the cardiovascular conditions listed. The first eight conditions in Table I were recommended by the American Medical Association to be definite disqualifying conditions. A majority of the responding physicians were in agreement on these eight conditions.

Only 15 per cent of the responding physicians would disqualify a boy with a functional heart murmur.

The review of literature indicated that most medical authorities would allow a boy with an enlarged heart to participate in athletics. Only 63 per cent of the respondents would allow a boy with this condition to participate. This would probably depend on whether the condition
was caused by exercise or by disease.

**TABLE I**

RESPONSES OF PHYSICIANS FROM SOUTH CENTRAL KANSAS CLASS B HIGH SCHOOLS REGARDING DISQUALIFICATION OF BOYS FROM FOOTBALL FOR CARDIOVASCULAR CONDITIONS

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Yes</th>
<th></th>
<th>No</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitral stenosis</td>
<td>17</td>
<td>85</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Aortic stenosis</td>
<td>18</td>
<td>90</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Aortic insufficiency</td>
<td>16</td>
<td>80</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Dilation of aorta</td>
<td>17</td>
<td>85</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Dysrhythmic heart disease</td>
<td>17</td>
<td>85</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Recent carditis of any etiology</td>
<td>16</td>
<td>80</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Hypertension on organic basis</td>
<td>15</td>
<td>75</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>Previous heart surgery for congenital or acquired heart disease</td>
<td>14</td>
<td>70</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>Murmur (functional)</td>
<td>3</td>
<td>15</td>
<td>17</td>
<td>85</td>
</tr>
<tr>
<td>Murmur (organic)</td>
<td>11</td>
<td>70</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>Cardiac heart</td>
<td>11</td>
<td>70</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td>Rheumatic fever</td>
<td>14</td>
<td>70</td>
<td>5</td>
<td>30</td>
</tr>
<tr>
<td>Rheumatic myocarditis</td>
<td>15</td>
<td>70</td>
<td>5</td>
<td>25</td>
</tr>
</tbody>
</table>

Some of the responses did not equal 100 per cent. This was due to some of the team physicians failing to answer all the questions.
with the American Medical Association that inguinal and femoral hernias are justification for disqualification in football.

TABLE II

RESPONSES OF PHYSICIANS FROM SOUTH CENTRAL KANSAS CLASS B HIGH SCHOOLS REGARDING DISQUALIFICATION OF BOYS FROM FOOTBALL FOR HERNIA CONDITIONS

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Yes</th>
<th></th>
<th>No</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
</tr>
<tr>
<td>Inguinal hernia</td>
<td>16</td>
<td>30</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>Femoral hernia</td>
<td>16</td>
<td>30</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>Cryptorchism</td>
<td>6</td>
<td>30</td>
<td>12</td>
<td>60</td>
</tr>
</tbody>
</table>

Only 30 per cent of the physicians agreed that cryptorchism should be a disqualifying condition. Ten per cent of the physicians failed to answer this question.

At least 70 per cent of the respondents agreed that the physical conditions, listed in Table III, should disqualify an athlete from football participation. The first three items in the table were recommended by the American Medical Association to be disqualifying.

Only 50 per cent of the responding physicians indicated that they would disqualify a boy that has had previous surgery on his head or spine. This seems to indicate that none of the physicians felt if the condition was corrected, the boy could be allowed to participate. The American Medical Association felt that the risk might be too great if the boy was allowed to play.
TABLE III

RESPONSES OF PHYSICIANS FROM SOUTH CENTRAL KANSAS CLASS B HIGH SCHOOLS REGARDING DISQUALIFICATION OF BOYS FROM FOOTBALL FOR NEUROLOGICAL CONDITIONS

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>History or symptoms of previous serious head trauma or repeated concussions</td>
<td>16</td>
<td>3</td>
</tr>
<tr>
<td>Convulsive disorder not completely controlled by medication</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>Previous surgery on head or spine</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Epilepsy</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Congenital dystonic</td>
<td>15</td>
<td>4</td>
</tr>
</tbody>
</table>

For epilepsy, 55 per cent of the respondents felt that this condition should be disqualifying. The low response seems to indicate that some physicians might allow a boy to participate if the condition was controlled and the boy was carefully watched.

Since some of the physicians did not answer all the questions, the results do not always total 100 per cent.

Table IV shows that only a few of the responding physicians would disqualify a boy for the mental conditions listed. These mental conditions are listed by the American Medical Association and other medical authorities as conditions which are definitely disqualifying in football. They felt that the risk of allowing the boy to play would be too great.
Only 30 per cent of the respondents agreed.

**TABLE IV**

RESPONSES OF PHYSICIANS FROM SOUTH CENTRAL KANSAS CLASS B HIGH SCHOOLS REGARDING DISQUALIFICATION OF BOYS FROM FOOTBALL FOR GENITAL CONDITIONS

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Yes</th>
<th></th>
<th>No</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Per Cent</td>
<td>Number</td>
<td>Per Cent</td>
</tr>
<tr>
<td>Absence of one testicle</td>
<td>6</td>
<td>30</td>
<td>14</td>
<td>70</td>
</tr>
<tr>
<td>Undescended testicle</td>
<td>6</td>
<td>30</td>
<td>13</td>
<td>65</td>
</tr>
<tr>
<td>Varicocele</td>
<td>6</td>
<td>30</td>
<td>14</td>
<td>70</td>
</tr>
<tr>
<td>Hydrocele</td>
<td>7</td>
<td>35</td>
<td>13</td>
<td>65</td>
</tr>
</tbody>
</table>

For item two, 5 per cent of the physicians failed to answer the question, causing a lack of 100 per cent response.

In the pamphlet, *A Guide for Medical Evaluation of Candidates for School Sports*, the American Medical Association did not list the orthopedic conditions they considered to be disqualifying for participation in football. Table V shows the orthopedic conditions which other medical authorities considered to be disqualifying.

Conditions five and six, in the table, received the highest responses for disqualification. Chronic osteomyelitis received a 70 per cent response and acute osteomyelitis received an 80 per cent response for disqualification. The other conditions received a 60 per cent

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response, or less, in favor of disqualification. This could indicate that it would depend on the degree of the condition as to whether or not the condition would be disqualifying for football. Congenital deformities and scoliosis received the lowest per cent of response (45 per cent).

### Table V

RESPONSES OF PHYSICIANS FROM SOUTH CENTRAL KANSAS CLASS B HIGH SCHOOLS REGARDING DISQUALIFICATION OF BOYS FROM FOOTBALL FOR ORTHOPEDIC CONDITIONS

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Yes</th>
<th>No</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Per Cent</td>
<td>Number</td>
<td>Per Cent</td>
<td>Response</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Congenital spondylolisthesis</td>
<td>11</td>
<td>55</td>
<td>9</td>
<td>45</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Congenital deformities</td>
<td>9</td>
<td>45</td>
<td>9</td>
<td>45</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spondylitis of vertebrae that causes adolescent kyphosis</td>
<td>12</td>
<td>60</td>
<td>6</td>
<td>30</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic osteomyelitis</td>
<td>14</td>
<td>70</td>
<td>6</td>
<td>30</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute osteomyelitis</td>
<td>16</td>
<td>80</td>
<td>4</td>
<td>20</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic joint injury</td>
<td>12</td>
<td>60</td>
<td>7</td>
<td>35</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Epiphysyeal diseases</td>
<td>12</td>
<td>60</td>
<td>5</td>
<td>25</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abnormalities of articulation in spine</td>
<td>10</td>
<td>50</td>
<td>7</td>
<td>35</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scoliosis</td>
<td>9</td>
<td>45</td>
<td>9</td>
<td>45</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table VI indicates that many of the responding physicians would not disqualify an athlete for the renal conditions listed. The American Medical Association recommends that the absence of one kidney and renal
disease are definite causes for disqualification. Only about one-half of the respondents agreed.

### TABLE VI

RESPONSES OF PHYSICIANS FROM SOUTH CENTRAL KANSAS CLASS B HIGH SCHOOLS REGARDING DISQUALIFICATION OF BOYS FROM FOOTBALL FOR RENAL CONDITIONS

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Per Cent</td>
</tr>
<tr>
<td>Absence of one kidney</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>Renal disease</td>
<td>11</td>
<td>55</td>
</tr>
<tr>
<td>Albuminuria</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>Nephrotic syndrome</td>
<td>15</td>
<td>75</td>
</tr>
<tr>
<td>Nephritis</td>
<td>15</td>
<td>75</td>
</tr>
</tbody>
</table>

Renal disease received a total of only 50 per cent response. More responding physicians failed to answer this question than any other question in the study. This could indicate a dependency on the type of renal disease the athlete had.

Albuminuria received the same number of responses for and against disqualification, with 10 per cent of the respondents failing to answer the question.

Nephrotic syndrome and nephritis received a 75 per cent response for disqualifying a boy in football.

A contact sport, such as football, could cause further damage to a boy with none of the conditions in Table VI. The risk involved could...
too great to allow a boy to participate, especially if he had only one kidney. The loss of the second kidney would be fatal.

Most of the respondents agreed with the American Medical Association that the musculoskeletal conditions in Table VII would be justification for disqualification in football. Condition number one in the table received 55 per cent of the response in favor of disqualification. This response could depend on the type and degree of the condition. Condition number two received a 75 per cent response for disqualification.

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Yes</th>
<th></th>
<th>No</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptomatic abnormalities or inflammations</td>
<td>11</td>
<td>55</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td>Functional inadequacy of the</td>
<td>15</td>
<td>75</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>musculoskeletal system, congenital or acquired,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>incompatible with the contact or skill demands</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>of the sport</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The total per cent response for item one of Table VII failed to equal 100 per cent because some of the respondents failed to answer the question.

Table VIII shows that 66 per cent of the responding physicians agreed with the American Medical Association's recommendations concerning
an enlarged liver and spleen.

TABLE VIII

RESPONSES OF PHYSICIANS FROM SOUTH CENTRAL KANSAS CLASS B HIGH SCHOOLS REGARDING DISQUALIFICATION OF BOYS FROM FOOTBALL FOR AN ENLARGED SPLEEN AND LIVER

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enlarged spleen</td>
<td>13</td>
<td>65</td>
</tr>
<tr>
<td>Enlarged liver</td>
<td>13</td>
<td>65</td>
</tr>
</tbody>
</table>

The low per cent of response for disqualification seems to indicate that the possibility of disqualifying the boy would depend on the cause of the enlargement.

Some of the physicians also failed to answer all the questions for this part of the study.

The ear conditions, which could be causes for elimination from contact sports, are shown in Table IX.

Significant impairment was the only condition the American Medical Association recommended as a definite disqualifying condition. Only 35 per cent of the respondents would disqualify a boy with this condition. At least 60 per cent of the responding physicians would not disqualify an athlete for any of these conditions.

Simple mastoidectomy received one of the lowest responses for disqualification in the study, indicating that there is very little danger in allowing a boy to participate after having this operation.
TABLE IX
RESPONSES OF PHYSICIANS FROM SOUTH CENTRAL KANSAS CLASS B HIGH SCHOOLS REGARDING DISQUALIFICATION OF BOYS FROM FOOTBALL FOR EAR CONDITIONS

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Yes</th>
<th></th>
<th>No</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Per Cent</td>
<td>Number</td>
<td>Per Cent</td>
<td>No Response</td>
</tr>
<tr>
<td>Significant impairment</td>
<td>7</td>
<td>35</td>
<td>12</td>
<td>60</td>
<td>1</td>
</tr>
<tr>
<td>Radial mastoidectomy</td>
<td>6</td>
<td>30</td>
<td>13</td>
<td>65</td>
<td>1</td>
</tr>
<tr>
<td>Simple mastoidectomy</td>
<td>2</td>
<td>10</td>
<td>18</td>
<td>90</td>
<td>0</td>
</tr>
</tbody>
</table>

Both items in Table X were recommended by the American Medical Association to be definite disqualifying conditions. A majority of the respondents failed to agree with the American Medical Association on these conditions.

TABLE X
RESPONSES OF PHYSICIANS FROM SOUTH CENTRAL KANSAS CLASS B HIGH SCHOOLS REGARDING DISQUALIFICATION OF BOYS FROM FOOTBALL FOR EYE CONDITIONS

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Yes</th>
<th></th>
<th>No</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Per Cent</td>
<td>Number</td>
<td>Per Cent</td>
<td>No Response</td>
</tr>
<tr>
<td>Absence or loss of one eye</td>
<td>8</td>
<td>40</td>
<td>11</td>
<td>55</td>
<td>1</td>
</tr>
<tr>
<td>Severe myopia (even if correctible)</td>
<td>6</td>
<td>30</td>
<td>14</td>
<td>70</td>
<td>0</td>
</tr>
</tbody>
</table>

Only 40 per cent of the respondents would stop a boy from playing if he were missing one eye. Fifty-five per cent would not disqualify the
boy. Only 5 per cent failed to answer this question. The risk of losing the other eye would seem to be a cause for disqualification, although it was not indicated in this study.

The low response (30 per cent) for disqualification of an athlete with severe myopia would indicate that most of the respondents felt the athlete could participate if the condition was corrected.

Most of the respondents agreed with the American Medical Association and other medical authorities, that the respiratory conditions listed in Table XI were disqualifying for football. Asthma was the only condition receiving a low per cent of response for disqualification.

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Yes</th>
<th></th>
<th>No</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuberculosis (active or under treatment)</td>
<td>17</td>
<td>85</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Severe pulmonary insufficiency</td>
<td>17</td>
<td>85</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Absence of one lung</td>
<td>13</td>
<td>65</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td>Respiratory Infections</td>
<td>14</td>
<td>70</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>Asthma</td>
<td>6</td>
<td>30</td>
<td>12</td>
<td>40</td>
</tr>
<tr>
<td>Virus pneumonia</td>
<td>17</td>
<td>85</td>
<td>3</td>
<td>15</td>
</tr>
</tbody>
</table>

TABLE XI
RESPONSES OF PHYSICIANS FROM SOUTH CENTRAL KANSAS CLASS B HIGH SCHOOLS REGARDING DISQUALIFICATION OF BOYS FROM FOOTBALL FOR RESPIRATORY CONDITIONS
Item number three, absence of one lung, received only 65 per cent response in favor of disqualification for football. The risk of losing the other lung seems too great to allow the boy to participate in a contact sport.

Table XII shows the general conditions which could be causes for disqualification in contact sports.

### Table XII

**RESPONSES OF PHYSICIANS FROM SOUTH CENTRAL KANSAS CLASS B HIGH SCHOOLS REGARDING DISQUALIFICATION OF BOYS FROM FOOTBALL FOR GENERAL CONDITIONS**

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Yes</th>
<th></th>
<th>No</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Per Cent</td>
<td></td>
<td>Per Cent</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number</td>
<td></td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>Obvious physical immaturity in comparison with other competitors</td>
<td>3</td>
<td>40</td>
<td>12</td>
<td>60</td>
<td>0</td>
</tr>
<tr>
<td>Obvious growth retardation</td>
<td>9</td>
<td>45</td>
<td>10</td>
<td>55</td>
<td>1</td>
</tr>
<tr>
<td>Diabetes, inadequately controlled</td>
<td>17</td>
<td>85</td>
<td>3</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>Jaundice</td>
<td>13</td>
<td>90</td>
<td>2</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Anemia</td>
<td>13</td>
<td>90</td>
<td>1</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>MNH</td>
<td>13</td>
<td>90</td>
<td>1</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Purpura</td>
<td>13</td>
<td>90</td>
<td>1</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Chronic bleeding tendencies</td>
<td>13</td>
<td>90</td>
<td>1</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Acute infections</td>
<td>13</td>
<td>90</td>
<td>2</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Infectious mononucleosis</td>
<td>13</td>
<td>90</td>
<td>2</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Cellulitis</td>
<td>11</td>
<td>55</td>
<td>9</td>
<td>45</td>
<td>0</td>
</tr>
</tbody>
</table>
TABLE XII (continued)

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Yes</th>
<th></th>
<th>No</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Per</td>
<td></td>
<td>Per</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impetigo</td>
<td>14</td>
<td>70</td>
<td>6</td>
<td>30</td>
<td>0</td>
</tr>
<tr>
<td>Skin infections</td>
<td>12</td>
<td>60</td>
<td>7</td>
<td>35</td>
<td>1</td>
</tr>
<tr>
<td>Handicapped (one of a pair of</td>
<td>12</td>
<td>60</td>
<td>6</td>
<td>30</td>
<td>2</td>
</tr>
<tr>
<td>organs missing)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The responding physicians agreed that most of the general conditions, listed in Table XII, would be justification for disqualification in football.

Obvious physical immaturity and growth retardation received the lowest per cent of response for disqualification, (10 and 15 per cent). This seems to indicate that the degree of the condition would determine whether or not a boy would be disqualified. The respondents may also have felt that these conditions could be left to the coaches to determine.

Eighty-five per cent of the respondents indicated that an athlete with diabetes should be disqualified, even though it can be controlled. The chances for injury are too great, if the boy would happen to suffer from the effects, while on the playing field.

All the hemorrhagic diseases received a high per cent response for disqualification.

Boils and furuncles received only 55 per cent of the responses in favor of disqualifying the athlete. This would indicate that many of
the responding physicians felt that this condition would be controlled so the athlete could still participate.

The 60 per cent response for the disqualification of an athlete with a skin disease would seem to indicate that disqualification would depend on the degree of the skin infection. Some of the physicians may also have felt the infection could be controlled so that the boy could still participate.

Only 60 per cent of the responding physicians indicated that they would disqualify a boy who was missing one of a pair of organs. This would probably depend on the organ that was missing. Table IV showed that 30 per cent of the respondents would disqualify a boy missing a testicle. Table VI indicated 45 per cent of the physicians would disqualify a boy missing a kidney. In Table X, 40 per cent disqualified an athlete missing an eye. Table XI showed that 65 per cent of the responding physicians would disqualify a boy missing a lung. Table XII could include these conditions and also a missing arm or leg in the handicapped section.

It would be possible for a boy to participate with an organ missing, but it would appear dangerous. A boy could not afford to lose the second of a pair of organs.
CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

I. SUMMARY

It was the purpose of this study to determine the medical conditions which team physicians considered to be justification for disqualification in football.

A questionnaire was constructed and sent to the football coaches of forty class B high schools in South-Central Kansas. The coaches were asked to have their team physicians fill out the questionnaire. A follow-up letter was sent after a reasonable length of time. There was a fifty per cent return.

The data were tabulated, analyzed, and compared with the recommendations of the American Medical Association and other medical authorities. There was a fifty per cent return. The percentages used represent only the responding physicians. Some of the percentages do not total one hundred per cent because some of the respondents failed to answer all the questions.

Over 70 per cent of the responding physicians indicated that most of the cardiovascular conditions listed were justification for disqualification in football. Only 15 per cent felt that a functional heart murmur was disqualifying. Fifty-five per cent of the respondents would disqualify a boy with an enlarged heart.

Ninety per cent of the respondents agreed with the American Medical Association that inguinal and femoral hernias are disqualifying.
Only 30 per cent agreed that cryptorchism should be a disqualifying condition.

The neurological conditions were considered by at least 50 per cent of the physicians to be disqualifying. Only 50 per cent of the respondents would disqualify an athlete who had previous surgery on his head or spine. The American Medical Association felt that this condition should be disqualifying. For epilepsy, 55 per cent felt this condition was justification for disqualification. The other conditions listed received a high per cent of response favoring disqualification.

The American Medical Association and the responding physicians differed greatly as to the genital conditions disqualifying a boy in football. About 30 per cent of the respondents would eliminate a boy for these conditions. The absence of one testicle received only 30 per cent response favoring disqualification.

At least 50 per cent of the physicians would disqualify a boy with the orthopedic conditions listed in this study. Acute and chronic osteomyelitis received the highest response for disqualification. Scoliosis and congenital deformities received the lowest per cent of response for disqualification. The American Medical Association did not list the conditions they considered to be justification for disqualification in football.

Of the respondents, only 45 per cent would disqualify a boy with one kidney. Only 55 per cent would disqualify a boy with renal disease. Both of these conditions were recommended by the American Medical Association as disqualifying. Nephrotic syndrome and nephritis
were considered by 75 per cent of the responding physicians to be disqualifying.

A majority of the respondents agreed with the American Medical Association that the musculoskeletal conditions were justification for disqualification.

The American Medical Association recommended that an enlarged liver and spleen should be causes for disqualification in football. Of the responding physicians, 65 per cent agreed. The cause of the enlargement could be a factor.

Only 35 per cent of the respondents would eliminate a boy with significant impairment to the ears. Simple mastoidectomy received the lowest per cent of response in favor of disqualification, indicating that many physicians did not feel this condition was serious.

Eye conditions also received a low per cent of response for disqualification. Only 40 per cent of the respondents would eliminate a boy missing one eye. Severe myopia was considered by only 30 per cent to be disqualifying. The American Medical Association did not agree with these results.

Most of the respondents agreed with the American Medical Association and other medical authorities that the respiratory conditions in this study were disqualifying. Only 30 per cent would disqualify a boy with asthma. For the absence of one lung, 65 per cent felt this would be disqualifying.

Most of the minor conditions received at least a 55 per cent response in favor of disqualification. Obvious growth retardation and
physical immaturity received a low per cent of the response for disqualification. Some physicians may have felt this should be left to the coach. The 60 per cent response for disqualifying an athlete missing one of a pair of organs probably indicated a dependency on the organ missing. Diabetes was considered by 95 per cent of the respondents to be disqualifying. Jaundice, hemorrhagic diseases, hepatitis, and infectious mononucleosis received 90 per cent of the responses in favor of disqualification in football.

II. CONCLUSIONS

Many of the conditions presented in this study were considered to be disqualifying. However, there were a number of conditions that the respondents did not feel were justification for disqualifying an athlete from participation in football. The following conditions were not considered to be disqualifying, or received a low per cent of response for disqualification:

1. Abnormalities of articulation in the spine
2. Absence or loss of one eye
3. Absence of one kidney
4. Absence of one testicle
5. Albuminuria
6. Asthma
7. Boils and furuncles
8. Congenital deformities
9. Congenital spondylolisthesis
10. Cryptorchism
11. Enlarged heart
12. Epilepsy
13. Functional heart murmur
14. Hydrocele
15. Obvious growth retardation
16. Obvious physical immaturity in comparison with other competitors
17. Previous surgery on head or spine
18. Radial mastoidectomy
19. Renal disease
20. Scoliosis
21. Severe myopia (even if correctible)
22. Significant impairment to the ear
23. Simple mastoidectomy
24. Symptomatic abnormalities or inflammations to the musculo-skeletal system
25. Undescended testicle
26. Varicocele

From the data compiled in the study of disqualifying conditions for football, it was concluded that the responding physicians did not agree with the American Medical Association that the following conditions should be disqualifying:

1. Absence or loss of one eye
2. Absence of one kidney
3. Absence of one testicle
4. Obvious growth retardation
5. Obvious physical immaturity in comparison with other competitors
6. Previous surgery on head or spine
7. Renal disease
8. Severe myopia (even if correctible)
9. Significant impairment to the ears
10. Undescended testicle

The conclusions could indicate that other factors might exist that would have to be considered before an athlete was disqualified from participation in football. These factors could be the type of condition or the degree of the condition. In the case of a handicapped boy, it might depend on which organ or limb is missing.

The failure of some physicians, in this study, to agree with the views of the American Medical Association should be of some concern to everyone. The study seems to indicate that some of the respondents should become more familiar with the recommended disqualifying conditions. Football should be made as safe as possible for all the participants.

III. RECOMMENDATIONS

Other studies should be made in this area of investigation, not only concerning the disqualifying conditions in football, but also the disqualifying conditions for other sports.

This study could be expanded to cover a wider geographical area
and include a larger number of participating physicians. The reasons for and against disqualification could also be investigated.

An investigation of the medical examination given to the athletes also seems necessary. Many examinations do not include all the conditions needed. A study of the number of schools requiring medical examinations, and what the examination consists of, also seems possible.

Much more can be done to acquaint the physicians and coaches with the conditions that are disqualifying in athletics.
BIBLIOGRAPHY

A. BOOKS


B. PERIODICALS

APPENDIX A

QUESTIONNAIRE

DISQUALIFYING MEDICAL CONDITIONS FOR FOOTBALL

PARTICIPATION IN SOUTH CENTRAL KANSAS

CLASS B HIGH SCHOOLS

In partial fulfillment of the requirements for a Master of Science degree in Education at Drake University, I am making a study of the disqualifying medical conditions for participation in football. The purpose of this study is to determine the medical conditions which team physicians consider to be justification for disqualification from participation in high school football. The information will be treated in an impersonal and confidential manner. No reference will be made to any individual or school.

Directions: Please check yes or no for the following conditions:

1. Would you disqualify a boy from participation in high school football for any of the following cardiovascular conditions?

   a. Mitral stenosis
   b. Aortic stenosis
   c. Aortic insufficiency
   d. Coarctation of aorta
   e. Cyanotic heart disease
   f. Recent endocarditis of any etiology
   g. Hypertension on organic basis
   h. Previous heart surgery for congenital or acquired heart disease
   i. Murmur (functional)
   j. Murmur (organic)
   k. Enlarged heart
   l. Rheumatic fever
   m. Rheumatic myocarditis

2. Would you consider the following to be a basis for disqualification?

   a. Inguinal hernia
   b. Femoral hernia
   c. Cryptorchism
3. Are the following neurological conditions disqualifying?  

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. History or symptoms of previous serious head trauma or repeated concussions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Convulsive disorder not completely controlled by medication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Previous surgery on head or spine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Epilepsy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Congenital dystonic</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Are the following genital conditions basis for disqualification from football?  

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Absence of one testicle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Undescended testicle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Varicocele</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Hydrocele</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Would the following orthopedic conditions prevent a boy from football participation?  

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Congenital spondylolisthesis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Congenital deformities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Syphilitic of vertebrae that causes adolescent kyphosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Chronic osteomyelitis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Acute osteomyelitis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Chronic joint injury</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Epiphyseal diseases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Abnormalities of articulation in spine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Scoliosis</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. Would you disqualify a boy for the following renal conditions?  

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Absence of one kidney</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Renal disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Albuminuria</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Nephrotic Syndrome</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Nephritis</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. Would the following musculoskeletal conditions be justification for disqualification from football?  

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Symptomatic abnormalities or infections</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
b. Functional inadequacy of the musculo-
   skeletal system, congenital or
   acquired, incompatible with the
   contact or skill demands of the
   sport

6. Would you disqualify a boy for an enlarged
   spleen?

7. Would an enlarged liver disqualify a boy
   from football participation?

10. Are the following ear conditions basis for
    disqualification from football?
    a. Significant impairment
    b. Radial mastoidectomy
    c. Simple mastoidectomy

11. Would the following eye conditions eliminate a
    boy from football?
    a. Absence or loss of one eye
    b. Severe myopia (even if correctible)

12. Are the following respiratory conditions justification
    for disqualification from football?
    a. Tuberculosis (active or under treatment)
    b. Severe pulmonary insufficiency
    c. Absence of one lung
    d. Respiratory infections
    e. Asthma
    f. Virus pneumonia

13. Would the following general conditions prevent a boy
    from participating in football?
    a. Obvious physical immaturity in comparison
       with other competitors
    b. Obvious growth retardation
| c. Diabetes, inadequately controlled | Yes | No |
| d. Jaundice | --- | --- |
| e. Hemorrhagic diseases | --- | --- |
|   Hemophilia | --- | --- |
|   Purpura | --- | --- |
|   Other bleeding tendencies | --- | --- |
| f. Acute infections | --- | --- |
|   Infectious mononucleosis | --- | --- |
|   Keratitis | --- | --- |
|   Boils and furuncles | --- | --- |
|   Impetigo | --- | --- |
| g. Skin infections | --- | --- |
| h. Handicapped (one of a pair of organs missing) | --- | --- |
April 6, 1967

Dear Sir:

In partial fulfillment of the requirements for a Master of Science degree in Education at Drake University, I am making a study of the disqualifying medical conditions for participation in football. The purpose of this study is to determine the medical conditions which team physicians consider to be justification for disqualification from participation in high school football.

Please ask your team physician to fill out the enclosed questionnaire and return it as soon as possible. A stamped, self-addressed envelope is enclosed for his convenience.

The information will be treated in an impersonal and confidential manner. No reference will be made to any individual or school. However, if you are interested in the results of the survey, I will be glad to send them to you.

Sincerely,

William R. Wilson
Belle Plaine
Kansas
May 12, 1967

Dear Coach:

This letter concerns the questionnaire which I sent to you. In case you have misplaced it or were too busy at the time, I am enclosing another questionnaire.

Would you please have your team physician fill out the questionnaire and return it to me as soon as possible. A stamped, self-addressed envelope is provided for your convenience.

The questionnaire is in partial fulfillment of the requirements for my graduate degree. Your help is greatly needed and will be appreciated. The names of coaches, doctors, and schools will be kept confidential. Thank you for the few minutes of your time.

Sincerely,

William R. Wilson
Belle Plaine
Kansas
APPENDIX D

NAMES OF SCHOOLS PARTICIPATING IN THIS STUDY

Andale
Belle Plaine
Cheney
Coldwater
Conway Springs
Douglas
Goddard
Goessel
Greensburg
Hesston

Howard
Kiowa
Little River
Marion
Oxford
Peabody
Rose Hill
Stafford
St. John
Udall