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## Junior High School Football Program

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JUNIOR HIGH SCHOOL FOOTBALL PROGRAM

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A Thesis  
Presented to  
the Graduate Faculty  
Central Washington State College

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

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by  
H. Keith Shahan  
August 1967

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## TABLE OF CONTENTS

CHAPTER	PAGE
I. THE PROBLEM AND DEFINITIONS OF TERMS USED . . .	1
The Problem . . . . .	1
Statement of the problem . . . . .	1
Importance of the study . . . . .	1
Procedures to be Used . . . . .	2
Definitions of Terms to be Used . . . . .	2
Junior high football . . . . .	2
Adolescence . . . . .	3
Chronological age . . . . .	3
Anatomical or physiological age . . . . .	3
Developmental tasks in physical education .	3
Advantages . . . . .	3
Disadvantages . . . . .	4
II. THE CHARACTERISTICS AND NEEDS OF JUNIOR HIGH	
SCHOOL AGE BOYS . . . . .	5
Age Characteristics . . . . .	6
Maturation and Physiological Growth . . . . .	9
Developmental Tasks . . . . .	11
Psychological-Emotional Characteristics . . . .	13
Sociological Characteristics and Needs . . . .	15
III. THE ADVANTAGES OF A JUNIOR HIGH SCHOOL	
FOOTBALL PROGRAM . . . . .	18

CHAPTER	PAGE
Maturation and Physiological Aspects . . . . .	21
A method of measuring physiological maturity	28
Psychological-Emotional Aspects . . . . .	28
Sociological Aspects . . . . .	32
Educational Aspects . . . . .	34
Conclusions . . . . .	35
 IV. DISADVANTAGES OF A JUNIOR HIGH SCHOOL	
FOOTBALL PROGRAM . . . . .	39
Maturational and Physiological Aspects . . . . .	41
Psychological-Emotional Aspects . . . . .	44
Sociological Aspects . . . . .	48
Educational Aspects . . . . .	49
Economical Aspects . . . . .	51
Conclusions . . . . .	53
 V. RECOMMENDATIONS . . . . .	54
Educational Program . . . . .	55
Administration of Program . . . . .	57
In-Service Clinic . . . . .	63
Chronological Assessment . . . . .	64
 BIBLIOGRAPHY . . . . .	66

## CHAPTER I

### THE PROBLEM AND DEFINITIONS OF TERMS USED

This subject of interscholastic football on the junior high school level has been a controversial issue for the past twenty-five years. It is a subject that might concern educators, doctors, parents, and all others who are interested in the development of our youth.

#### I. THE PROBLEM

Statement of the problem. The purpose of this thesis is to study the junior high school football program regarding organization, procedure, and format. This study will attempt to (1) show the basic needs of junior high school age boys, (2) discuss the advantages of the junior high school program, (3) discuss the disadvantages of the junior high school program, and (4) present recommendations for changes which could insure a better program.

Importance of the study. Articles have been written by the advocates of the junior high school football program, stating the advantages of the program. Conversely, articles have also been written stating the disadvantages and harmful effects that the program may have upon boys of this age group. This study will present both points of view.



The junior high school program includes boys who range in grades seven through nine; therefore, a section of this research will deal with the physiological, psychological, personality, and emotional characteristics of boys in this age group.

It is the intention of this writer by comparing the research, thoughts, and comments of others, that this study be able to provide a better understanding of the existing program and to determine whether junior high school football is worthwhile or should be changed or even eliminated.

## II. PROCEDURES TO BE USED

Information and data shall be gathered by a search of material obtained from library sources. In the process of reviewing literature pertaining to the characteristics and needs of the junior high school student, the advantages and disadvantages of junior high school football, an attempt will be made to evaluate the accumulated data in an effort to formulate recommendations that may be used by the reader to determine if the junior high school football program is worthwhile or should be changed or even dropped.

## III. DEFINITIONS OF TERMS TO BE USED

Junior high football. Pertains to boys who range in grades seven through nine, on a school sponsored athletic

team competing among teams from different schools involved in the activity, tackle football.

Adolescence. For boys, a period beginning at eleven to twelve years of age and ending about eighteen to nineteen years of age. It involves the pubertal changes in the body, but also developments in intellectual capacities, interests, attitudes, personal relationships, emotional growth, vocational and academic interests, aptitudes, and moral developments.

Chronological age. Age expressed in actual years, months, and days.

Anatomical or physiological age. Pertains strictly to physical growth and the accompanying stages of maturation as indicated by such factors as metabolism, eruption of teeth, functional changes of voice, sex, etc.

Developmental tasks in physical education. A task which arises at or about a certain period in the life of the individual. A task involves successful achievement which leads to one's happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by the society, and difficulty with later tasks.

Advantages. Expressions by doctors, educators, athletic associations, and other qualified media, pertaining

to their philosophies and opinions, why athletics should be present at the junior high school level.

Disadvantages. Expressions by doctors, educators, athletic associations, and other qualified media, pertaining to their philosophies and opinions, why interscholastic athletics should not be present at the junior high school level.

## CHAPTER II

### THE CHARACTERISTICS AND NEEDS OF JUNIOR HIGH SCHOOL AGE BOYS

In order for the ordinary individual to evaluate this thesis on Junior High School Football and its value, it is necessary to summarize the human growth and development of boys between grades seven and nine.

One of the most controversial issues in school athletics is the junior high school interscholastic football program. The junior high school is identified with grades seven, eight, and nine.

Cole states the following:

Boys in the junior high school need a program of athletics different from that provided for either elementary school or senior high school youth. It must be suited to the needs of children who are undergoing rapid physical growth, who have special need for improving body coordination, who seek to take part in an increasing number of activities, who have strong desire for group acceptance, and who are beginning to be interested in the opposite sex.

The junior high years and adolescence is a period of growth. In the course of a few years the individual undergoes changes in both size and proportion--changes that take him from a childish to a mature level. The rapidity, variety, and force of these developments are alike bewildering, even though they are sometimes exciting and satisfactory. The alterations are indeed so extensive that some people have regarded adolescence as a sort of second birth. Usually there is some degree of malco-ordination to be seen during the period. Both the school work and the personalities of junior high pupils are affected by the concurrent processes of growth (17:15).

## I. AGE CHARACTERISTICS

Junior high school ages range from eleven to fifteen years. Advanced children enter the seventh grade at eleven years of age and slow developers generally leave the ninth grade at fifteen years of age. The majority (three out of four students) range from twelve to fourteen years of age. This group is unique and requires a special education program. They are constantly making adjustments to psychological, physiological, and sociological factors. During the junior high school experience, these boys probably undergo more changes than at any other time in their lives. They are trying to understand their bodies, gain independence, achieve adult status, acquire self-confidence, develop social relations with their peers, and acquire a sense of values.

Dr. Fritz Redd, Chief, Laboratory of Child Research, Bethesda, Maryland, states:

There is something especially transitional in this age group. It is a time of leaving late childhood and entering adolescence, but not actually being in advanced puberty. So that we have an in-between age which psychologically is characterized as relatively different from that which we originally thought of as the elementary school type and also different from the older adolescent (33:29).

It should be mentioned that boys at this age differ in some areas. There are school and city groups of this age level possessing as much maturity and physical development

as the high school age of other areas. This is conditioned by nationalities and racial backgrounds.

It is a great period for self-testing activities. It is an awkward stage, requiring most careful leadership in development of reflexes and psychological adjustment. It is the age of wide sampling experiences in many sports and activities. We need an intelligent mixture of the great range of physical education and recreational experiences. It is also the age and grade level, especially in larger cities, for extension of competition through extramural sports (64:2).

This is a period of rapid physical growth which is frequently uneven in various parts of the body. Awkwardness and inability to coordinate sometimes occur.

A report of The National Conference on Physical Education for Children of Elementary School Age states:

The muscles, heart, lungs, and bones share liberally in the growth spurt (72:17).

Mitchell adds:

Bones and ligaments are not yet strong enough to stand heavy weight activities, or sustained hard contact sports. Ossification of bones is well advanced. Nor should muscular development of upper shoulder girdle be forgotten (64:3).

The reports of the National Conference on Physical Education further comments:

The necessity to develop skill and coordination and take part in activities that do not call attention to their awkwardness or put them in embarrassing situations is one objective needed in the junior high program. Also, it seems that vigorous activity to stimulate each of the organs to attain its fullest development is needed (72:17).

Boys of all ages but especially pre-adolescents and adolescents dislike prolonged rest and restriction from action. There is an innate need for physical activity at this age which should always be considered as a complement to their intellectual efforts. This is brought out in the following statement by The National Conference on Physical Education:

Interest in the members of one's own sex broadens to include an interest in members of the opposite sex. Great loyalty to groups as clubs, gangs, and teams, is shown and there is a keen desire for individual recognition and the urge to be free of adult restrictions are very vivid. Emotions are easily aroused and swayed. The interest span lengthens. They may want to continue in activities beyond fatigue to exhaustion. There is a keen interest in competitive activities. The enjoyment of organized team sports is keen. To be able to take part in activities of their own choosing, to be leaders and captains of groups, to create and modify games, and to evaluate progress are elements that must be included in the school program. The need to be frequently in situations requiring practice of fair play, when a necessity that must be taught and learned (72:18).

Adolescence is fundamentally a period of physical and physiological change. This furnishes the physical basis for emotional, social, intellectual, and economic maturity. If a child did not increase his stature, if his muscles did not become strong, if his sex organs did not grow, if his brain did not mature, if his internal organs did not increase in size and efficiency to meet the requirements of an enlarged body, the child could never achieve mature ideas and attitudes, could never support himself, and could never take his place in adult society.

It is therefore essential that teachers should keep in mind the physical background of adolescence so that they may not attribute to other causes those indirect manifestations that are mainly the result of mere growth.

## II. MATURATION AND PHYSIOLOGICAL GROWTH

Physical changes during the period of the junior high school boy are very fast and dramatic. A rapid growth spurt is characterized by gains in height, weight, and size, and biochemical activity of the body results in internal physical changes. Rapid growth of body framework often causes poor body control as related to muscular development. Longbones of the arms and legs are growing rapidly and cases of poor posture become prevalent. There are some slow as well as fast physical developers. Many individual differences are apparent.

Breckenridge states:

Growth includes two aspects of change. They are not interchangeable but, nevertheless, are inseparable. It is said that a child "grows up." He "grows" in size; he "grows up" or matures in structure and function. In maturing, he passes through successive changes, which indicate his progress. These indicators are called maturity indicators. Ultimately, as he has passed through each successive stage of growth he reaches the end point of this process, which is called maturity (8:15).

Jewett and Knapp in speaking of the junior high age student and adolescence years state:



The major physiological characteristic of adolescence is its "rapidity of growth." The factors initiating this extensive and highly accelerated spurt (and for which there is no counterpart in childhood or adult life), are not fully understood (38:5).

Whatever the inciting factor or mechanism, the important fact is that growth and physical and biochemical changes are rapid and extensive. The spurt in height is the one most frequently noticed (it usually occurs between the ages of twelve and seventeen in boys). The remark, "My, how he's shot up," is common place (38:6). It is not unusual for a boy to grow several inches in a single year.

The fact that muscle mass is developed last is also an important consideration. Boys wish early to imitate their elder brothers and adults and to carry out those activities which require more strength and better support about the joints (particularly the knee) than they yet have. Few will accept advice to defer stressful sports (which seem inevitably to carry the most prestige value), so there is little alternative except to foster early the development of greater strength.

Jewett and Knapp further add:

Nowadays, many boys have so few (if any) strenuous chores to do that it is doubly likely that young adolescents will have little muscular strength; they must be given high resistance but properly graded exercise so that they may develop the strength they need (38:7).

Recent investigation shows that wide individual differences occur both in temporal pattern and in intensity, so that quite literally no two individuals are alike. Furthermore, in the same individual, rates of maturing in height, weight, skeletal age, and mental and motor abilities are not the same nor is the order of development the same from child to child. Even physical abilities do not mature together. Espenschade points this out by stating:

Strength is closely related to size or physique. Coordination and balance in boys show little gain during the period of most rapid physical growth. Thus, the more mature boys have a distinct advantage in physical activities (29:22).

Adolescents do differ from little children and from adults. At their time of life occur physiological events which have never taken place before. Many of them will never occur again. These changes, however, are normal. Adolescence is not necessarily a time of problems, undesirable events, and abnormalities. It can be, and often is, relatively free of difficulties. This is most likely to be so when the early years have been emotionally and physically healthy ones.

### III. DEVELOPMENTAL TASKS

Among the more important development tasks that adolescents face are the following advanced by Corcy and Herrick:

1. Coming to terms with their bodies.
  - a. During early adolescence most young people seem to be very much aware of their own bodies. The reasons for the heightened consciousness of self at this age are numerous. First, it is during late preadolescence that changes occur in the proportion, structure, and functions of the human body that are oft times startling. Second, personal appearance is of great significance in adolescent society. Young people learn quickly that the way their bodies look does have significance not only for courtship and the eventual selection of a mate, which is a bit far off for adolescents, but also in connection with many other types of social achievement.
2. Learning new relationships to their age-mates.
  - a. Adolescents must acquire many new attitudes, skills, and understandings as they work out a new sort of social relationship to their age mates of both sexes. Few things are more important than acceptance by their group. The isolates are excruciatingly unhappy, at least until some adjustment is worked out which usually involves escape to books or movies or hobbies or adult society. Preadolescent groups are usually single sex-groups with boys and girls somewhat contemptuous of one another. It is during adolescence that young people must learn how to be attractive to the opposite sex.
3. Achieving independence from parents.
  - a. This task probably causes parents even more difficulty than it does their sons and daughters. The fact is, though, that children must learn a new relationship to their fathers and mothers if they are to achieve complete adulthood. This new relationship is one which involves mutual affection and respect without dependence. In some cultures the adolescent's experience as he breaks away from his family is less traumatic. In a modern industrial society, however, social change is so rapid that the new generation usually has quite different standards of acceptable behavior from those that govern its parents.

4. Acquiring self-confidence and a system of values.
  - a. To have self-confidence and the attendant self-respect is of great importance to adolescents. Consequently, they are constantly testing themselves out. Here we see the boys wanting to find out if they have courage and resourcefulness (20:33).

#### IV. PSYCHOLOGICAL-EMOTIONAL CHARACTERISTICS

A very important factor is that the boy of junior high age wants to emancipate himself from his primary identification with his parents. Up to this time he has lived in submission and obedience to them. Although not in a state of hostile rebellion, he is nonetheless experiencing pangs of doubt about the all-encompassing wisdom of his parents. As doubts continue, he puts an increasing distance between himself and his parents and turn to those of his own age as the ultimate determiners of his society.

Mohr and Despres express it this way:

The child seeks to discover meanings about himself and others through experiences that largely exclude his parents. This is a major psychological feature of the pre-adolescent. Up to this time, identification with the parents and dependence upon their approval and support have been paramount. Now, however, others begin to play more significant roles and serve in important ways to influence the outlook, feelings, and values accepted by the child (66:2).

The boy now seeks for other models to typify the ideals and virtues that once were represented by the parents. This is an age of hero worship. If the boy chooses as a

model an adult who represents the highest ideals of gentlemanly behavior and clean living, both the boy and his parents are fortunate.

The physiological changes which accompany early adolescence are responsible for psychological problems involving behavioral adjustment. This period is often characterized by mood fluctuations, so say Bucher and Dupee:

Many of the psychological strains are brought about by changes in group status. As the individual matures, he is faced with "critical adaptations" . . . if he is to maintain status or find acceptance in the social groups with which he is identified or in which he desires membership because the desire to belong to a group and to achieve popularity and recognition is strong in the young adolescent, he finds himself in a high-pressure environment which constantly challenges his ability to make adjustments and to adapt to changing situations (9:2).

Jones, in commenting on the psychological happenings that occur within the junior high boy, states:

It is during the junior high school age that the majority of boys experience the profound psychological changes which are associated with puberty. After a period of quiescence, physical growth is more rapid at this time than at any period beyond infancy (43:24).

Some adolescents with emotional upheavals can best handle their problems by attacking them directly and working at them until the solution is in sight. Security in peer relationships is a major preoccupation with many junior high school pupils. Concern in the area of boy-girl relationship is one reason for the emphasis on social activity. Another

is the need for stronger ties in the peer culture, to aid young people in establishing new, less dependent attitudes toward the family group. In the process of weaning himself away from the family as his dominant group, it is natural that the adolescent should conform, temporarily at least, to the dictates of his peer group.

Cole very tactfully sums up the psychological occurrence in the junior high boy:

In order to pass from childhood to adulthood the adolescent must solve a number of problems. He must develop heterosexual interests, become free from home supervision, make new emotional and social adjustments to reality, begin to evolve a philosophy of life, achieve economic and intellectual independence, and learn how to use his leisure time profitably. If he fails in any of these achievements, he fails to gain full maturity. To put the matter in a nutshell, the main business of the adolescent is to stop being one! (17:32)

## V. SOCIOLOGICAL CHARACTERISTICS AND NEEDS

Personal and social development is less well understood but is, if possible, more unique to the individual than physical and mental development. Physical and mental attributes are important factors in social adjustment. Energy level, physical attractiveness, skill in using the body, knowledge, and alertness all influence relations with others.

Concepts of self development through experiences with the physical and social world play a major role. Motivations

are derived from these same sources, but the body needs must be recognized, also. Certain personal awarenesses are dependent upon maturation of physical processes. The biological changes of puberty give rise to physical impulses which are perceived and translated into emotional states. These in turn must be translated into acceptable social behaviors.

Lehsten in commenting on research findings concerning positive relationships between physical ability and social adjustment states:

If we are certain that this is a cause and effect in relationship, we should intensify our efforts to provide opportunities for their improvement of physical abilities with the implication that this will affect better social and personal adjustment. If we accept the premise that the relationships of these two qualities may be due to the complementary interaction that each has upon the other, then our efforts should be geared toward increasing the frequency and scope of experiences which will nurture the development of our youngsters from a dual point of view involving their physical and social abilities (51:23).

Dr. Seth Arenian in addressing the conference sponsored by the Division for Girls and Women's Sports and the Division for Men's Athletics, on the "Development of Values," stated:

The fastest growth in the development of values is during the first decade of life, but values and value systems may change. The environment greatly affects changes and/or reorganization in values especially during childhood and adolescence (6:45).

A young person in any culture faces more or less constantly certain lessons and issues resulting from the interaction between the child's maturing body and the pressures of his social and physical environment. Learnings are essential in the sense that they are necessary for a reasonably adequate life as a person--a life that is happy and that results in effective and satisfying membership in a social group.



## CHAPTER III

### THE ADVANTAGES OF A JUNIOR HIGH SCHOOL FOOTBALL PROGRAM

Competition itself, like any game, becomes a medium, a way of expressing oneself, a way of doing something. In itself, it is not evil; used for evil purposes it becomes abhorrent. Thus, competitive athletics and sports are neither good nor bad because they are competitive or because they are athletics. They become good or bad depending upon the way they are conducted, upon the goals set, and upon the circumstances surrounding them. Whether they are useful or constructive depends upon the way they are used, and upon the leadership which controls and teaches them.

Louis E. Means, Consultant in School Recreation for the California State Department of Education, advocating sports participation, states:

We hear the cry of over-emphasis in sports all about us. A visit to schools and recreation departments over the state would prompt one to declare that we need Emphasis In Sports, and more and more emphasis. We are not even scratching the surface in making sports for our boys possible under the democratic concept. Over-emphasis: No. Emphasis: yes. Let's have more of it. Yes, all this demands staff, facilities, budgets. Visionary? Idealistic? No. It simply demands leadership that fights for a genuine principle, demonstrates ability to produce it and slowly but surely gets the task accomplished.

Yes, we believe in sports. It is the testing ground of reality. It is life itself. But again may we

emphasize: competitive sports are not good or bad simply because they are competitive, or because they are sports. Let's build a leadership concept that will guarantee the contribution of useful citizenship through sports for children and youth in a democracy (61:3).

Evidence by the way of statistics show that the recommendations disfavoring junior high athletics have had but little effect on practices in junior high throughout the United States. A questionnaire survey of the interscholastic athletics programs offered during the school year 1957-58 in the 4,559 separately organized junior high schools in the United States revealed that of the 2,329 junior high schools from which responses to the questionnaire were received (which schools enrolled an estimated 90 per cent of the total junior high school population), slightly more than 85 per cent had programs of interscholastic athletics, and 78 per cent of the principals of the schools favored these programs.

According to statistics released by the National Federation, 200,000 boys are playing junior high school football and the number can be expected to rise in the coming years.

Bates, in describing the Junior High Football Program at Iowa City, stated:

Having studied under the late Dr. Charles McCloy, former head of the graduate school in physical education at the State University of Iowa, I share his philosophy on junior high school athletics. That is, with proper

controls, very little, if any, harm can be wreaked by contact sports such as football and wrestling (4:48).

Castellanos and Greer, in their report on tackle football in pre-high school children, stated:

That children themselves through their easy access to news media and parental attitudes are manifesting a growing interest in the sport. Hence, more and more will compete regardless as to whether they have or have not supervision, and certainly in unregulated sandlot games the possibilities of injuries are greater. This consideration led to the organization of pee-wee football leagues in the various communities by responsible adults (13:188).

Burnett, commenting on the advantages of football, quotes the New England Journal of Medicine:

It is unfortunate that football is blamed for so much of the grief in athletics, since most of the serious and fatal accidents occur in sandlot and unorganized games (11:488).

Burnett, further made comments concerning football in the Boston area:

One of the causative factors in injuries was found to be the playing in fields and parks with baseball diamonds for a playing surface or in fields without grass. More consideration should be given to practice fields, because it is there that many accidents happen.

The Director of Physical Education passed a rule making it mandatory that a doctor be present at all games, and that he have complete charge of all the players during the game. Not only is the doctor present to attend all injured but to remove those physically unfit.

Regardless of any remarks to the contrary, football stands today as it has always stood: The leading school sport both to the players and the spectators. When properly conducted, injuries can be kept to a minimum, not only in number but in seriousness. Nothing any boy can do will teach him more about fair

play, sportsmanship, honor, and respect for others than will participation in football.

Under proper supervision with adequate equipment, playing on good fields, with properly arranged schedules, with commercialism deemphasized, with due regard for weather conditions, with proper officials in charge and with a doctor to supervise and control all injured players, football can be a worthwhile game.

Boston's system can boast of 31 years without a fatality or the need of any major surgery. This is indeed a record of which to be proud! (12:21)

## I. MATURATION AND PHYSIOLOGICAL ASPECTS

Petersen contrasted the maturational, structural, strength, and motor traits of upper elementary and junior high school boys with different levels of athletic ability and contrasted the same traits of boys in these athletic groups with non-participants:

This study demonstrated that boys who make and are successful on inter-school athletic teams are definitely superior in maturity, body size and build, both absolute and relative (to weight and size) muscular strength, and explosive muscular power. Thus, the decision as to whether boys are physically ready for such participation should be determined on factors other than chronological age (or grade in school) as is commonly done today (14:163).

In a study to determine the relationship of injuries sustained in tackle football to maturation level of junior high boys (65 boys ranging in age from 13 to 16 years were selected from six junior high schools), X-rays of the wrist were used to determine the maturation and skeletal age.

The results revealed the average chronological age of the injured group was 14 years 9 months, while the average skeletal age was 15 years and 5 months. These figures reveal that the injured boys averaged 8 months greater maturation age over their average actual age.

In the non-injured groups, the average chronological age was 14 years 8½ months as compared to the average skeletal age of 15 years 3 months (range 12 to 17.6 years). These boys were judged to average 6½ months greater skeletal age than their chronological age.

The average skeletal age of the injured group was 15 years 5 months and for the non-injured group the average skeletal age was 15 years 3 months. A difference of only 2 months is noted between these averages (76:2).

Coaches of these experimental groups estimated the physical abilities of their participants. Their evaluation revealed that the subjects were judged to somewhat less than "very good" but considerably better than "average" ability. The evaluation also revealed that the total group was slightly below "very good" in speed, agility, balance, and coordination.

The slight difference was in favor of the non-injured boys. This evaluation reveals that a coach's estimate of ability is of doubtful value in determining readiness to play tackle football, thereby reducing the incidence of injuries at the junior high school level.

The injuries of interest in this study were those involving skeleton or joints:

Fractures, dislocations, and sprains comprised the majority of the injuries. Of the 29 recorded injured, 9 (31%) were fractures, 4 (13%) were dislocations, and 16 (55%) were sprains. Two were not classified.

The difference between chronological age and maturation age for both groups was found to be statistically significant at the 5% level of probability.

No significant difference was found between the injured and non-injured groups in skeletal maturation.

There was no relationship between incidence of injuries and physical ability as determined by the subjective evaluation of the coaches (76:3).

A conclusion can be determined from this study:

For the sample tested, there was no relationship between maturation level and incident of injury (76:3).

Larson and associated orthopaedists tabulated and classified athletic injuries they say (which totaled nearly 800).

It was noted that the group 14 years of age and under, accounted for approximately 20 per cent of the injuries.

These figures are interesting, when one compares them with the total school population of our area, which includes the University of Oregon at Eugene. The group 14 years of age and under accounts for about 60 per cent of the school population; the high school group accounts for 15 per cent of the school population; and the University for 25 per cent. With 40 per cent of the injuries in the smallest numerical age group, that is, the high school population, it appears they are the most vulnerable to athletic injury (49:24).

Creighton J. Hale, Director of Research for Little League Baseball, concludes that:

Accumulated documentary evidence suggests that the rate of physical and mental maturation of the American youth has been accelerated. Children of today are taller, heavier, possess greater mental capabilities, and demonstrate advanced physical skills which in many instances surpass the best achievements of older age groups of previous years.

It has been found that children who excell in sports are usually one to two years advanced in maturity.

Since 1880, a period of only 75 years, the average 14 year old boy has gained five inches in height and 24 pounds in weight. In weight alone this represents a 25 per cent increase. Also, evidence has proved that the average 14 year old boy of today has grown to the size of the 16 year old (34:355-56).

Clarke and Shelley made a comparison of junior high boys by sports, of the Mean H scores (hull scale), on the various test items for the 26 athletes who were rated as outstanding in one sport. They noted that:

Six of these athletes were outstanding in basketball and five were outstanding in football, baseball, track and field, and wrestling.

The football players were found to be the most mature group. Also, the football players were definitely superior in structural measures.

The larger football athletes were much stronger than the athletes representing the other sports; in fact, their lowest H-score mean of 60 for the Physical Fitness Index (achieved despite their greater weight) was still as high as the highest mean for the other sport groups.

In conclusion of the test, it was found that the football athletes were definitely superior to the other athletic groups in skeletal age, all structural measures, and all strength measures (15:132).

Clarke and Shelley determined that, compared with the three, two and one sport athletes, the four-sport outstanding athletes were more mature, had larger bodies, had higher scores on the motor ability tests, were much stronger, and had higher intelligence. The rank of most measures for the other groups was in the order of three-sport, two-sport, and one-sport athletes.

Walker, in a study on the status of interscholastic football for junior high school students in Texas, states:

One of the primary criticisms is that the younger, less mature adolescent boy, age 12-15, is more susceptible to injury than the older boy, age 16-18, and for that reason football is more hazardous in the junior high school. However, the survey of Texas schools, including over 9000 participants, revealed an injury incidence of only 5 per cent in junior high school football as compared with a figure of 10 per cent for high school football. (89:24)

The high school statistics were compiled by the Texas Interscholastic League.

Walker states in his study:

No age relationship could be drawn for injuries as a whole for junior high football (89:24).

Gallagher, in reporting on "Athletic Injuries Among Adolescents," at Phillips Academy, Andover, Massachusetts, states the following:

This health department fully believes in athletics as a means of developing endurance, strength, agility, and coordination and of fostering certain desirable personality traits, and gives the athletic program full support.

At this institution all students are required to participate in athletics (32:198).

Fait, in speaking on the problems of Athletics at the Junior High Level, said:

Today, we are better able than ever before to evaluate the effects participation in competitive sports will have upon the pubescent or adolescent player. Evidence is far from complete, but there are sufficient facts to permit certain intelligent conclusions about the effects interscholastic competition will have upon the immature youngster. The evidence dispels some of



the fears which have been voiced through the ages since the days of Aristotle.

Much of the research upon which we may draw, has centered upon certain physiological aspects--the effects of strenuous activity upon the heart, kidneys, and growth rate, and the incidence of accidental injury.

It may be said that there is nothing to indicate that the heart or the kidneys of the normal youngster may be damaged by the strenuous work required of him in competitive interscholastic play at the junior high school level. Studies of the effect upon his growth are inconclusive. Accidents can and will occur to him during competitive play at a rate somewhat greater than in noninterscholastic team play. The extent of possible permanent difficulty due to an injury to the epiphysis has not been determined.

It has been established, that those who are the more physically proficient at this age are also the more physiologically mature and there is a greater possibility that they will be competing on athletic teams (30:20-22).

There is no conclusive evidence that boys are injured more often or more seriously in well-organized junior high school interschool athletic programs than in high school interscholastics (9:2).

Sandlot or unorganized football games cause the most critical and the highest number of injuries (9:2).

In regard to growth and athletics, the literature reveals two major points: Those who participate in athletics at the junior high school level are selected for superiority in body size, but there is inconclusive evidence concerning the effects of athletics on growth.

Shuck, in a study to evaluate growth and development in terms of body shape, body size, and speed of growth in 366 junior high school boys, concluded that athletes were

larger in body size than nonathletes. His study indicated that athletes were selected for superiority in body size and speed of growth as well as for skill (9:3).

Rowe, in a study comparing the growth experience by a group of athletes to that experienced by nonathletes, found that athletes did not grow as much as nonathletes. One obvious explanation is that the athletes have already experienced their growth spurt, whereas the nonathlete has not (9:4).

McGraw found that athletic participation stimulated growth (9:4).

Shuck, in his study of the effects of athletic competition on growth and development in junior high school boys, concluded that there was no pronounced retardation or acceleration in growth and development among athletes resulting from athletic participation (9:5).

A few studies show that junior high school boys who participate in athletics are those who possess the greatest amount of physiological maturity. This might explain why these athletes show less growth as a result of athletic competition. In such cases, the factors of bone growth, muscular unbalance, and fatigue would not be so critical for them since they have, for the most part, passed through the growth spurt.

### A Method of Measuring Physiological Maturity

The need arises for a method of measuring physiological maturity. Several techniques or criteria have been employed in the past, such as beard growth, urinalysis, measurement of height and size, and pubic hair development. It is generally agreed, however, that the single most dependable criterion of maturity is the evaluation of bone development by X-ray. It is questionable whether this practice is widely used in junior high school interscholastic athletics because of the time involved and the cost of skeletal X-rays. Certainly, with the dangers of injury and fatigue inherent during the growth spurt, all participants in interscholastic athletics should be classified according to physiological maturity by X-ray assessment, and only those already physiologically mature should be permitted to play.

## II. PSYCHOLOGICAL-EMOTIONAL ASPECTS

In discussing the psychological and emotional effects athletic competition may have on children and youth, Kolb stated:

There is no doubt about the beneficial effect both psychologically and physically of athletic competition on children. It enhances the ego of shy individuals, enables them to better identify themselves with the group. We cannot get away from the possibility that unfortunate reactions may develop in some cases, but they are far outstripped by beneficial effects, and of course with properly controlled and directed reaction, it would not happen at all (25:21).

Carson McGuire, Ph.D., College of Education and the Department of Educational Psychology at the University of Texas, in discussing the psychological aspects of athletic competition at the junior high level, feels:

This is the period when the new teen-age society of age-mates has its beginning.

If carried on under "good" supervision, given adequate time and equipment, organized athletic competition appears to be a means--not the only one--for facilitating the developmental tasks of both sexes (25:22).

Charlotte Del Solar, M.D., of The Child Study Center at Yale University, believes:

It is not too difficult to keep the children's competitiveness within decent bounds if the adults involved in the athletic program are in control of their own competitive feelings. This becomes a problem of teacher training and supervision and not a problem in child development (25:22).

In discussing the "high pressure" aspects of competition for children of junior high age, Kolb believed "that the high pressure element can be over done, but doubted whether there is much harm in it" (25:22).

McGuire believed:

. . . that high pressure elements are negative aspects of the program, but they are not a function of athletic competition per se. There is nothing wrong about athletics in a well-conducted program with public relations to interpret it to the school's community. The mixture of competition and cooperation is beneficial.

It is what we do around it that provides a negative atmosphere at times (25:22).

In a study by Johnson in an investigation to the responses of boys in three different stages of puberal development to physical exercise performed under motivated and non-motivated condition, it was disclosed that:

It was advised for those coaching junior high school boys in strenuous athletic competition to choose their motivational techniques with care. Because of great individual variability, motivational procedures should be adapted to the nature of the individual performer.

Further, repeated experiences in less intense competition situations may improve subsequent performances. They may serve to condition a youngster's emotional tolerance to more stimulating, more exciting competitive circumstances (39:2).

Some critics speak of emotional disturbances incited by failure and pressures of competition causing undue strain and tensions. These same disturbances must also occur through examination periods, being dropped from the debating team or the marching band or the school play, or even losing his first love to another.

This whole life is filled with pressures and emotional problems; grappling with them when they are minor and when the child can wake up each morning with a clear head and a new outlook only strengthens him for later years when problems do not become less with the coming of the morning.

Kit emotions are the same emotions that adults have. They are no different except that they are appearing for the first time. The kids need to learn to handle them and they can do this better with adult help. Athletics, which tap most of the emotions, can help the adolescent learn to control himself. This is a very real and positive contribution to the education of the child (78:220).

Present practice supports the case for competition at this level. A rather comprehensive survey of junior high schools, made in 1958, reports that over 85 per cent had interscholastic athletic programs and that these programs were supported by 78 per cent of the principals of the schools.

Fait, in commenting on the effects of junior high athletics upon character development, stated:

The effects of interscholastic athletics upon the emotional, personality, and character development of the immature participant are less easily determined than the physiological effects. Most of the fears which have been voiced as well as the praises which have been sung, are based upon assumptions or, at best, upon isolated incidents. The changes in personality and character, either positive or negative, which may occur as the result of participation in competitive sports have never been satisfactorily demonstrated by controlled studies.

If personality or character changes occur because of participation in competitive interscholastic sports at the junior high school level, these are so slight that they cannot be determined with the psychological testing instruments now available. It is probable that no greater or less significant changes take place in athletic participation than in any other extra-curricular activity in which the junior high student might engage (30:20).

Dr. Leslie Malpass, in speaking of the benefits of competition, stated:

It is normal to be competitive in our society, and there are many significant values in competition (6:45).

Dr. Allan Ryan, in speaking on the subject of "The Contribution of Sports and Athletics to Physical Well-Being," stated:

Sport activities can be used to help the needed body building and body maintenance in our culture.

Most coaching and training, as it is practiced today, is good and some is exceptional (6:46).

Walker, in reporting on a survey of junior high football in Texas, stated:

Contrary to the opinion of some educators, organized leagues, involving championship honors, played a stronger role in controlling, modifying, and equalizing competition in a wholesome manner, than they did in intensifying competition

Walker further adds some information that would tend to challenge those critics who support the idea that only a few benefit from interscholastic athletics:

The argument advanced discriminating against any program designed for only part of the student body, hardly seems sound. If so, then the various special feature of the total school program such as dramatics, debating, the band, and other such activities could be equally criticized. The competitive football program would seem to be designed to meet the individual needs of a selected group, but at the same time adds to the morale of the entire student body (89:42).

### III. SOCIOLOGICAL ASPECTS

The junior high school student looks to peer-group membership for status, prestige, and recognition. These groups place a high value on physical ability. Therefore, it has been argued that interschool athletics at the junior high school level contribute to the student's security and social adjustment. McGraw and Tolbert concluded that:

Junior high school boys achieve more popularity through participation in interscholastic sports than in any other way (9:45).

Regarding social adjustment, Salz, in a study utilizing five personality tests, found that those boys who had been exposed to varying levels of competition, scored significantly higher on the personality tests than boys who did not have competitive athletic experience (9:46).

Biddulph, compared the personal and social adjustment of high school boys of high athletic achievement to that of boys of low athletic achievement. He found those ranking high in achievement demonstrated a significantly greater degree of personal and social adjustment (9:46).

In contrast to the socially active are those of junior high school age who find stability through achievement in art, athletics, scholarship, and the like. We are frequently impressed with the social aspects of adolescent development, that we, as well as they, tend to underestimate the value of accomplishment and creativity in aiding adjustment.

To some extent school accomplishments are contingent upon first finding satisfactory social status and dependable friendship relationships. It therefore becomes the task of the school to see that these social needs are being met.

Pechstein and McGregor, in speaking of the sociological needs of the junior high pupil, states:

Participation is the keynote of all the socialized activities of the junior high school. The participation of every pupil in the extra-curricular activities



provided, means not only a well-balanced development for the individual, but a shared recreative experience which is a basic element in social solidarity (71:166).

#### IV. EDUCATIONAL ASPECTS

The competitive sports program can be educational in nature; it can provide opportunities to learn sport skills, to keep physically fit, to develop worthwhile attitudes concerning competition. Just how educationally sound a competitive sports program is depends upon the leadership and direction given the program. An interscholastic program can be justified educationally only if winning is not permitted to become more important than the welfare of the participants.

Clarke and Shelley, in working with Medford, Oregon, Growth Study in using Maturity, Structure, Morot Ability and Intelligence Test Profiles of Outstanding Elementary School and Junior High School Athletes, found some interesting results:

Comparative intelligence and scholastic ability of the athlete and the non-athlete have been disputed issues for many years. The results of studies are not in complete agreement on these issues. However, the evidence which does exist, indicates that either there is no difference in scholastic success in high school and college between the athlete and the non-athlete or the athlete generally obtains higher scholastic grades than the non-athletes; furthermore, a greater percentage of the athletes are proven to graduate (15:132).

Junior high school boys at school 86 in Indianapolis, were divided into two equal groups of twenty-one athletes and a like number of non-athletes. The athletes were those who had participated in at least one interschool athletic activity each year of their junior high schooling. By using twenty-one students in each classification, athlete and non-athlete, it was possible to arrange them on a "head to head" basis according to intelligence test scores. The Henmon-Nelson Test of mental ability was used to determine each boy's mental ability. The means of comparison used was a ranking of each boy's academic achievement.

Over-all results of the study seem to indicate that a boy possessing an average I.Q. (110-90), may actually increase his scholastic attainment by athletic participation in junior high interschool sports. A general statement of conclusion would seem to be that when the I.Q.'s of the athlete and non-athlete are held constant, the athlete is slightly superior in academic achievement to the non-athlete at the junior high level of education (55:28-29).

## V. CONCLUSIONS

To offset the positive values of competition at this age level, most of the writings have suggested a number of negative items such as overstimulation of the emotions, development of a false sense of individual worth (values), over-aggressiveness, over-exertion with chronic fatigue, possible brain injury, joint strains, and possible injury to the epiphysical area in the long bones of the body.

The time has come for real action. Despite all that has been written, there still remains a reasonable doubt as to whether these highly competitive contact activities for younger children are good or bad. The evidence is not conclusive. Much of the reporting is based on opinions. True, the opinions are often rendered by experts and there is some agreement among them. But a more exacting type of research is necessary in order to condemn an activity or defend it. If it is good, it should be defended. More research is needed. Thousands of boys have gone through athletic programs involving some degree of competition, pressure to win, and physical contact. Have they been helped more than they have been hurt? Or is it the other way around? What is the real evidence? (91:224)

Dr. Barba, in delivering his address on "Fitness of American Youth," before the American Academy of Pediatrics on April 1, 1957, stated:

I feel that the body contact sports are not too harmful and are really a natural expression of an inner need. I have never seen healthy young animals co-exist without body contact play. I feel that my job is not to prevent or prohibit such activity, but to see that it is guided and properly supervised. I do not mean merely putting a watcher on the playground while the youngsters run around knocking each other down. I mean real instruction and real inspiration. It is useless to tell children or young people that winning does not matter. It does matter and our deepest instincts tell us it does (84:228).

In a study conducted in the state of California concerning the nature, frequency, and age incidence of injuries in interscholastic football, Neilson states:

Aside from being bruised, boys playing interscholastic football are more apt to have a sprained ankle, sprained knee, or sprained shoulder than any other type of injury. More than half of all the injuries which occur are included in bruises, sprained ankles, sprained knees, and sprained shoulders.

If age is a factor in causing injuries it appears to be the range in age of players on teams rather than being a particular age. There seems to be little relationship between age and seriousness of injury. Also, there seems to be little relationship between age and type of injury (69:89).

Neilson pointed out that the study also found certain factors accompanied any injuries that occurred:

1. Condition of playing field.
2. Quality and quantity of personal equipment worn by player.
3. Physical and mental condition of player.
4. Knowledge player has of the game.
5. Competence of instructor.
6. Age range of players on teams.
7. Relative size of schools playing in the league.
8. Relative size of squads.
9. Competence of officials in the game.
10. Number of games in the schedule.
11. Weather conditions during the game.
12. Morals of the team.
13. Desire of the team and coach to win at all costs.
14. The number of minutes the player is in the game.
15. State of fatigue of player (69:90).

Speaking in favor of junior high football, Anderson and Woughter use the program established at Flint, Michigan, as an example:

In Flint, there are programs designed for the talented child in science, mathematics, humanities, music, art, and drama. Athletics were probably the first programs for the talented child. Through Flint's community school concept, school facilities became almost a part of a family's daily living. Parents now are acquainted with music skills, science problems, languages, etc., and the teachers, thus easing the way for acceptance of enriched programs in these fields. This does not justify downgrading an athletic program which, in a sense, pioneered the way in giving the gifted child a break (3:41).

Last, the question: Can the money, time, and energy devoted to an interscholastic athletics program be justified?

Fait seems to think that a junior high school could reply affirmatively to this question only if:

1. The school and community greatly desire to offer the experience of participation to the students;
2. The necessary controls can be exercised so that the entertainment features of such a program do not detract from the educational aspects of the program;
3. Sufficient funds are available to support the program in such a way that the best possible type of education experience is possible without jeopardizing other phases of instruction (30:22).

## CHAPTER IV

### DISADVANTAGES OF A JUNIOR HIGH SCHOOL

#### FOOTBALL PROGRAM

Grade school and junior high school participation in highly organized interschool athletic leagues has caused much controversy among parents, boards of education, teachers, and physicians. Parents want their children to have the best possible program of physical and health education that can be devised through the joint thinking of all of the interested professions. Many parents reject the facts derived from exhaustive study of children in the first nine grades.

Is it because they prefer to bask in the reflected glory heaped upon immature children by an unthinking public which demands the last ounce of effort to win for good old "X" Junior High School? (27:13)

The Joint Committee on Health Problems in Education of the National Education Association and The American Medical Association and The National Conference for Cooperation in Health Education, and The American Association for Health, Physical Education, and Recreation, have all approved a statement which in substance recommends the following:

Interscholastic leagues should be confined to senior high schools. Interschool activities for junior high school pupils should be limited to occasional meets or games. Junior high school boys should not compete in

American football. An extensive program of intramural activities is strongly recommended for these students (27:13).

Parents of the children concerned should be the first to demand a sane and rational program consistent with this ideal. The general public would do well to accept the professional advice of physicians and educators and allow these youngsters to grow up without the unnecessary emotional and physical strain of playing gladiator in the public arena (27:14).

The Joint Committee on Athletic Competition for Children of Elementary and Junior High School Age, in their final report which was presented by the California State Department of Education in July, 1959, grade comments concerning tackle football at the junior high school level:

Activities should be appropriate to the level of maturity, skills and interests of the participants. Tackle football for children below the ninth grade age is definitely disapproved (40:8).

The Bulletin of The National Association of Secondary-School Principals presents the major points advanced by the opponents of highly competitive athletics for boys of junior high school age as follows:

1. Boys of junior high school age are growing and developing at an accelerated rate and, consequently, are particularly susceptible to injuries of the bones and the joints. The stresses and the strains associated with participation in interscholastic athletics (particularly the body-contact sports of tackle football and ice hockey) are too severe for the junior high-school youngsters. Such participation may result in injuries that are not immediately apparent, but that may cause trouble in later life.
2. Boys of junior high-school age vary widely in respect to height, weight, and physiological

maturity. Unless the boys are matched on an equitable basis, competition in body-contact sports may be dangerous. Such matching is a difficult task, not likely to be accomplished by the average physical education teacher or coach.

3. The strenuous exercise that accompanies participation in interscholastic athletics may have deleterious effects on the hearts of rapidly growing boys. The single stethoscopic examination to which an athlete is normally subjected is not infallible in determining whether or not the heart of the boy might be damaged by strenuous exercise.
4. Participation in interscholastic athletics may, particularly with reference to height, interfere with the normal growth pattern of junior high-school boys.
5. High-pressure competition may lead to strong emotional reactions in youngsters, which reactions may adversely affect emotional and social development.
6. Interscholastic athletic programs tend to allow a few gifted boys to monopolize the school personnel, the time, and the facilities at the expense of the majority of the boys in the schools. The coach usually is also the physical education teacher and, because of pressure to produce winning teams, he often is led to neglect the physical education and intramural programs which serve all the students (37:96-97).

#### I. MATURATIONAL AND PHYSIOLOGICAL ASPECTS

Most schools do not take the trouble to match teams and players according to size and experience so that competition is grossly unfair.

Walker's survey of junior high school football in Texas indicated a lack of uniformity and showed the



pressing need for standards among junior high schools (89:42).

Clark has repeatedly emphasized that a boy is still a boy, no matter how old and how mature he looks in his football uniform. His physical fitness is not the same as that of an adult; his reactions are also different. Games should provide fun for the boy, not entertainment for the adults (13:180).

Chronological age is a very poor yardstick during the adolescent period. It is a fact that there really is no such person as the average 14-year-old boy; at age 14 (or 12, 13, 15, or 16, for that matter) perfectly normal young people vary widely in state and rate of growth and development. Furthermore, there is no evidence that any time or rate of growing is better than any other. Yet those of the same chronological age are likely to be pitted against each other--socially, academically, and athletically --and held up to the same expectations.

Studies have shown that the boys who mature late are at a particular disadvantage in competitive activities which require strength. Many boys who cannot compete successfully in games have expressed a desire for opportunities to improve motor skill through practice with others who are at a similar stage of development.

On the other hand, the early-maturing boy, while having some definite advantages in regard to strength, size, and mature bearing, may not be as strong as he looks. He faces the hazard of being pushed beyond his strength in competitive athletics for the sake of team or school prestige. Similarly, he may be given responsibilities beyond his years, simply because he looks older than his less mature classmates.

Reichert points out in an article on "Competitive Athletics for Pre-Teen-Age Children":

That the physiological factors of participation in interschool athletics at the junior high school level should be considered first, is indicative of their importance in resolving this issue. The growth-spurt characteristic of the early adolescent is responsible for many of these physiological considerations. Because muscular development fails to keep pace with longbone growth, joints and bones are not fully protected. The child is, therefore, extremely susceptible to joint dislocations and bone injuries, especially to the epiphyseal cartilages, which are not yet calcified (9:2).

In skill development, the child develops certain sets of muscles more than others. In general, strenuous athletics tend to develop the flexor muscles more than the extensor muscles. The resultant shift in stress affects the development of the bones to which the muscles attach. According to Wolff's Law, changes in the internal structure and external appearance of the bones are determined by the application of such stress. This may lead to poor posture, resulting in a skeletally malaligned individual.

Lowman found that 85 per cent of a group of several hundred orthopaedists, replying to a survey, indicated that "athletic competition should only be for the physiologically mature" (9:4).

Lowman further states the following:

I consider the movements to encourage highly organized competitive activity for boys below the high school age to be especially dangerous, because neither skeletal growth, cartilages or joints, to say nothing of muscles, are sufficiently developed (53).

Lowman feels the main concern lies with:

Not the occasional trauma, such as strains, or fractures, but rather is the gradual piling up of minute trauma to growth cartilages and joint structures from intense use under stress. The results of such trauma may not show until later years. Consequently, the necessary care may be neglected (52:25).

In conclusion, Mitchell contends the movement for junior high school interscholastic athletics is wrong from a physiological standpoint:

The growing boy is apt to be harmed. Under the excessive demands of highly organized competition, he will have to continue beyond the natural limits of his endurance (64:23).

## II. PSYCHOLOGICAL-EMOTIONAL ASPECTS

Dr. Elmer Mitchell, Director of Physical Education, University of Michigan, well-known professional author, and life-long leader in the field of health, physical education, and recreation, makes the following statements:

Psychologically, the boy of nine to fifteen is not yet ready to assume the emotional stress of championship competition. This process must be gradually undergone. Before he is ready for the "big time," he should have the transitional experience of first playing with friends for the fun of playing, then with pickup challenge groups, and then with intramural teams having only a few onlookers. He needs to serve an apprenticeship in order to make a normal adjustment to the more serious responsibilities that are to come. In intramural competition there is little pressure from crowds to win and there is little adverse publicity in case a player makes a mistake. Consequently, it is better mental hygiene for the participants to play their beginning games in situations where they can develop skills and team play without being subjected to undue nervous strain with resulting emotional impairment. Today, however, in spite of these cautions from mental hygienists, say the youngsters are being pushed ahead of their years in an adult conceived program involving cheerleaders, gate receipts, and newspaper publicity (65:14).

The Joint Committee on Athletic Competition for Children of Elementary and Junior High School Ages has identified the following undesirable high-pressure elements:

Highly organized competition in the form of leagues or championships. Overemphasis by means of newspapers, radio, television, or similar media. Stress on individuals rather than teams, such as selection of "all star" teams.

Tournaments, frequent contests, long seasons, "little bowl" games, or other procedures that cause pressures or that may make undue physical demands on young boys or girls.

Games or contests played at night or at other times, outside school or recreation hours.

Travel beyond the immediate neighborhood (or in the case of small rural schools, a nearby community).

Encouragement of partisan spectators and supporters--any pressures that come from the social situation that place undue value on an informal game.

"Grooming" of players for a high school or college team, proselyting or inducements of any kind to cause a good player to leave his normal group and play with another team.

Commercial promotions which, under various guises, seek to exploit youth for selfish purposes.

Competitions in which a selected few players are given a large and disproportionate share of facilities and of the time and attention of staff members, with the resultant neglect of a large number of children.

Sanborn, in commenting on the psychological burdens that junior high football places upon junior high age students, states:

Adult leadership determines the length of practice and play periods, and the resultant pressure can cause the boys to play too long. Self-determination, a boy's guide to participation in unorganized activities, ceases to be the controlling factor, and a boy who is tired either does not realize it or will not ask to be taken out of the game because of social pressures (78:220).

Herbert A. Scott, Professor of Physical Education at Rice Institute, states:

I would oppose interscholastic competition in football between teams of ninth grade boys representing different towns. In short, interscholastic competition involving trips, should not be conducted below the senior high school level on the basis that it is wholly unnecessary, demoralizing to the school program and places entirely too much importance upon the game (82:54).

Dr. James B. Conant, in discussing the overemphasis on competitive athletics, puts it this way:

There is in both our schools and colleges today, a vicious overemphasis on competitive athletics. Such overemphasis is seriously destructive of our entire educational structure.

I could take the reader to cities and towns where football games are played in a stadium "at night" between teams composed of boys 13 and 14 years of age. Spectators are encouraged, since gate receipts are counted on to pay at least some of the expenses. If this is not exploitation of children, I do not know what the word "exploitation" means (19:57).

In discussing the "high pressure" aspects of competition for children of junior high age, Edward J. Humphreys, M.D., and Deputy Commissioner for mental hygiene and hospitals in Trenton, New Jersey, stated:

I am most violently opposed to high pressure elements being introduced into the competitive program. Inducements toward achievements certainly might be made, but high pressured tactics are thoroughly unsound from a mental health point of view (24:14).

Dr. C. L. Lowman, distinguished orthopaedic surgeon at the Orthopaedic Hospital in Los Angeles, and for years medical consultant for the schools of that city, makes the following statement concerning the psychological effects of competitive athletics upon junior high aged boys:

The emotional pressures of practice periods before the game, followed by either victory or defeat, cannot be withstood, because of immaturity (53).

Dr. Lowman continues with other observations, which have been conditioned by his long years as a physician, athletic coach, and educational advisor, plus findings gathered from surveys to hundreds of other orthopaedic physicians over the nation:

The question of psychological stress during the troubled period of early childhood should not be overlooked. Children at the upper elementary grades and

junior high ages are not sufficiently adjusted emotionally to stand the stress and excitement incident to competition outside their own schools. In order to develop gradual emotional balance, they should compete against their own records, against another opponent, or in interclass and intramural sports (52:2).

Walker, in speaking of his study of junior high football, issues the following statement:

Where competition was not well organized, the danger of inequality of competition entered the picture, since age limits and other factors were not controlled uniformly (89:42).

Mitchell concludes with this statement:

The boy of eleven to fifteen is not yet ready to assume the emotional stress of championship competition (64:25).

### III. SOCIOLOGICAL ASPECTS

Mussen and Jones compared eighteen late-maturing and sixteen early-maturing adolescent boys. Their results showed that a high aggressive drive and an intense drive for social acceptance are more characteristic of the physically retarded than of the physically accelerated. In general, their data support the findings of earlier studies which showed that the high social drives common to late-maturing adolescents stem from feelings of insecurity, rejection, and inadequacy. The adverse effects of such drives are manifest in childish, affected, attention-getting techniques. The point is, that the early-maturing adolescents make the junior high school interscholastic teams.

These boys receive the prestige which their peer groups attach to athletics at this age level. This serves to heighten and dramatize the effects of athletics on the late-maturing adolescent who does not play interscholastics because he cannot make the team (9:2).

Interscholastic athletics, therefore, only increase the adverse effects on the personality of the late-maturing adolescent described by Mussen and Jones.

Mitchell, in speaking of the sociological aspects of interscholastic athletics, makes the following statement:

Sociologically, this junior high school athletic movement is regimenting our youth in their early teens. We have long been critical of mass gymnastics or mass marching as being un-American, as being foreign to free individual initiative. Yet, what is now happening at a time in the youngster's life when he should be developing a sturdy individualism? At that very time we are subjecting his every decision, his every move, to the dictation of adult-imposed orders. He must do this, he must do that, just when his whole being is crying for freedom to make his own choices. Submerge this self-reliant spirit now, subject it to premature team play--contrary to the requirements for normal child growth and expression and the result in the long run will tend to stifle initiative rather than to develop it. It is in later adolescence, when group interests are emerging in the boy that he will naturally accept orders and undergo self-sacrifice for the interests of the team. More-over, from the other sociological considerations of reducing traffic accidents and curbing juvenile delinquency, pupils in the early teens should not be accompanying teams as rooters (65:15).

#### IV. EDUCATIONAL ASPECTS

Educationally, the junior high school period is one of orientation and introduction to all subjects, leaving



specialized pursuance to the senior high school and college years. The interscholastic competition at the junior high level interferes with this process.

Mitchell feels that the present junior high school trend has not been demonstrated to pay off in winning senior high school teams:

There are many instances of high school state championships being won by cities which do not promote junior high school varsities. Their school systems have placed their educational emphasis on all-school athletic competition, rather than on a small group of selected players as yet too young for rigorous training and specialization (64:23).

Dr. James Conant, in speaking of the lack of education emphasis, states the following selection, in order to support his theory that interscholastic competition is ill-placed at the junior high school level.

Those who defend junior high-school interscholastic contests, often do so by complaining that if the schools don't arrange games, the parents will. They say that out-of-school teams will play in organized leagues and that such games are more dangerous to the health of the players and the values of youth than interscholastic competitions that are controlled. This is a poor argument. I have listened to discussions of "controlling" athletics for many years; like poison ivy, athletics are difficult to control. Surely, the burden of proof is upon the proponents to show the educational values of any junior-high interscholastic athletics. I know of none. But, I know of schools in which the life of the school revolves around the athletic field, not the classroom. In such schools, children are being conditioned to become future members of a cheering section. A child sees such a school, not as a place to develop his own intellectual and physical talents, but as a place to applaud the skillful performance of athletic heroes.

Citizens ought to have a searching look at community pressures. In the last half-dozen years, the public schools have been blasted for being "soft" and "anti-intellectual." Many of the attacks have been unfair, but it is true that, in a number of schools I visited three years ago, many of the more able boys and girls had elected an academic program that was not as tough as it could have been (or to my mind should have been). Many were not doing as much homework as they could have handled without damage to their health. But why should they? If the whole community from the chamber of commerce on down has its eyes on the entertainment offered by the high school, why should the boys and girls get unduly excited about working with diligence at their studies (19:57)?

#### V. ECONOMICAL ASPECTS

Dr. Elmer Mitchell feels the junior high interscholastic program is economically wrong:

The selection of a few early-maturing athletic stars is made at the expense of a sports program for all the pupils. At no period in the school program is interest in sports so strong and easy to promote as at the junior high school level. This level is a "natural" so far as intramural activities are concerned. The junior high school youngster wants to play and does not need high motivation to induce him. When only one representative team is picked, however, most of the money, equipment, and instructor's time go to this one project. It is estimated that it costs from fifty to one hundred dollars to equip each boy who plays on a varsity junior high school football team.

This money should not be invested in a few boys at an age period when all the boys should be learning the fundamentals of sports and developing their sport potentialities. Moreover, the value of the present policy of concentrating on a few in order to develop future teams is doubtful; for the disparities of growth are tricky ones, and the little, unimpressive boy in the seventh grade may suddenly spurt in growth and be an outstanding athletic reality in the tenth grade (65:15).

John L. Reichert, M.D., states from his point of view that:

It is apparent that today's athletic programs suffer from a lack of competent medical advice and supervision. More objective and qualified medical research is needed. More doctors, interested in children, and informed on the basic facts of juvenile athletics, are needed to provide medical supervision for school and community athletic programs. If we as physicians are to work toward our stated goal of leading children to secure, responsible, and well-adjusted manhood and womanhood, here is an area where we must get in and pitch (73:1701).

Lowman gives some comments by the varied orthopaedists he surveyed:

I firmly believe that it is high time for an intensive program of education of the public, parents, and particularly sports writers and coaches, etc., to the dangers of injuries to adolescent children.

Interscholastic sports involving extreme effort and hard body contact, have caused many serious and in some cases lasting disabilities among children under seventeen, in my experience (54:635).

Lowman continues with further comments offered by his fellow orthopaedists:

We recommend that parents do not succumb to the pressures for outside sports exerted by any coach, school administrator, or other person. They should consider carefully the need for a fundamental physical education training of boys which leads to improvement of their body mechanics. In this way they lessen the likelihood of insidious joint, muscle, and growth plate injuries caused by allowing too early participation in many activities (52:2).

Edward S. Elliott, Director of Athletics at Columbia University, in replying to a question "should junior high boys participate in interscholastic football," stated:

Personally, I think it would be unwise for ninth grade boys to take part in interscholastic football. I suspect you agree with me, that in the last analysis, the intelligence and understanding of the coach in all contests, constitute the really important factor (82:54).

## VI. CONCLUSIONS

It is obvious that you will find a study which substantiates your position in regard to competitive athletics, but, by the same token, your opposition will be able to do likewise.

In the final analysis, regardless of the information accumulated, competitive athletics still have to be justified or disqualified on the basis of your individual educational programs.

## CHAPTER V

### RECOMMENDATIONS

It seems that in spite of the continuous approach and warning of the various medical associations the number of participants in junior high interscholastic tackle football is rapidly increasing throughout the country. Because of this increase in number of participants, it is important for physicians and responsible citizens to understand the problem as posed.

It is apparent, from the research uncovered, that junior high school football is a well-established program. It cannot be eliminated by its many critics. Therefore, educators, physical educators, recreation directors, and physicians should ally themselves with the program and help to establish the necessary reforms to insure a balanced program for the junior high aged boy.

The program must have responsible adults working in all phases of organization. The program must be geared to the needs of the boys, and the element of injury should be kept to a minimum.

Junior high football must be freed of unnecessary and undesirable pressures and overstimulation. Children should have fun while they are playing.

The following recommendations could help accomplish these goals to insure a better program.

### Educational Program

A special type of educational program is needed to challenge the developing abilities and broadening interests of the junior high school student. Balance in educational content must be provided to insure the maximum growth of each student and to help these youngsters achieve responsible, mature status as adults. In order to accomplish this, a grouping with persons their own age and pursuit of an educational program designed to meet their characteristics and needs is necessary.

Arrangements for a specialized program in physical education and athletics are as important as those for the traditional academic areas of education in the junior high school. The needs of the child of this age, which have been described, demand a developmental and adaptive type of program in physical education and athletics--more advanced and challenging than that experienced in elementary school, yet not as complex as that of the high school. The program should be exploratory in nature. It should articulate with the general education program.

For example, Ray Haywood, newspaper columnist for the Oakland Tribune, speaks out against Dr. Conant's comments

pertaining to an article in Life Magazine, "Athletics, The Poison Ivy of Our Schools."

Dr. Conant is a long-time foe of the bowl which overfloweth with football fans, or for that matter, the sworn and dedicated enemy of any sport played so expertly, people are willing to pay to see.

As is the case with many brilliant men, Dr. Jimmy, in his zeal to mould all children in his own intellectual image, sees only the evils in athletics, particularly at the junior and high school level.

His findings, after a four-year survey, were: "Many were not doing as much as they could have handled without damage to their health." We would guess that a normal high school boy could get by with seven hours sleep without damaging his health, which would leave 17 hours which could be used for study without damaging anything but his sanity.

Perhaps we weren't normal, but we look back on high school as the most pleasant, untroubled days of our life. It should be an age of coming awareness-- of girls, parties, running for the sheer joy of the exercise, of reading as much for pleasure as for assignment, of living in the present.

Frankly, we find the idea of study to the point of health damage during these golden years, completely repulsive.

Dr. Donant seems to have little sympathy with, or makes little classroom provision for, producing carpenters, bricklayers, stockbrokers, cooks, farmers or pleasant, home-and-husband-loving wives who barely have enough mathematics to make their check books balance.

He overlooks completely the fact athletics, even brawny football players, often become scientists, etc.

Apparently, it never has occurred to Dr. C., that athletes, because they have developed fortitude through give and take, often become the one capable fighting man facing the enemy for several hundred scientists, technicians, etc., working safely behind the lines.

Dr. Conant reports that many junior high authorities defend organized league competition on the grounds, if the school didn't provide the opportunity, the parents would take the youngsters outside for the competition. He says: "This is a poor argument."

Dr. Conant, warmly secure in his Ivory Tower, undoubtedly never has visited a juvenile court. If he did, he would know why parents are delighted when their active offspring became interested in sports.

Boys intent on earning a varsity letter rarely break and enter; when spending their energy on the basketball court, they have little left for gang wars; playing on the football team, or any team, provides the self-expression some non-athletes sometimes gain from stealing cars.

We agree there is a need for scientists, etc., and that the gifted deserve special attention. However, the average boy who may never quite master English, let alone Latin, shouldn't be forgotten in Dr. C's new school.

There are more of the average than the gifted. For this, the world should give thanks (35).

### Administration of Program

Interscholastic football at the junior high school level, should be administered so that all safety precautions are in effect. Every effort should be made to have the game played by boys of as nearly equal ability as is possible. Factors to be considered in the selection of squad members are age, weight, physiological maturity, skills, coordination, and desire.

Each boy should be carefully checked to determine his readiness before being allowed to participate in interscholastic contests as follows:



1. Physical--Medical examination, which shall include a thorough review of history before and as needed during the season.
2. Maturity--Careful evaluation of the individual's age, weight, height, physiological maturity, and degree of coordination with relation to all of the other boys with whom he will compete, especially that boy above or below average of others in height, weight, physiological maturity as related to his age, should be made.
3. Individual skills--A thorough program of screening for a period of two weeks, shall be conducted. Basic conditioning, running, cutting, falling, rolling, catching line and backfield fundamentals, blocking and tackling techniques, ball handling drills, should be participated in. Dummies and sleds should be used, and no boy should be permitted in live contact drills until he has proved his ability to partake in them. Contact drills should be conducted against equals only.
4. Team skills--Team play leading to game situations should be taught through controlled scrimmage with boys placed in groups of similar maturity and skills.

5. Desire--Observation of the individual's alertness and general desire to participate must be noted.

The above mentioned types of testing and teaching, with complete cataloging of the individual's ability, should enable the coach to screen all boys and determine their readiness for competition.

The following factors should also be included in the list of safety precautions:

1. Equipment--Properly fitted equipment, of good quality, is mandatory for safe participation in football. All essential protective devices are to be used. In addition to the normal pads and helmets, teeth and face protection guards should be provided. Schools unable to equip contestants properly should not offer the program.
2. Physician--It is recommended that a physician be present at all contests and readily available during practice sessions. If an injury occurs during a game, the physician in attendance will determine the athlete's fitness to continue play. During practice sessions, in the event of potentially serious injury to head, neck, or spine of a player, a physician should see the injured as soon as possible. No participant who has been ill or injured may return to play without the approval of the school physician.

3. Officiating--Proper officiating is a most important safety factor. The following factors are essential:
  - a. The use of the "fast whistle" is mandatory.
  - b. Strict enforcement of all rule violations will inculcate in these boys the proper playing habits and attitudes toward the game.
  - c. At least two (2) certified officials should be used.
4. Game conditions
  - a. No school team, or individual player, may participate in more than 6 games, which shall be scheduled with no more than one game per week. In extreme cases, games may be rescheduled. A minimum of 4 days must elapse between any games. (These recommendations coincide with most sources consulted.)
  - b. Practice may not start before September 1st. The actual starting date for the sport after August 31st may be set by the Sectional Athletic Council, but all schools must remember that 28 calendar days must elapse between the start of practice and the first game. No practice session shall exceed two hours in length, and no more than one may

be held in any one day. (These suggestions follow recommendations by most sources consulted.)

- c. No school may play interschool football until 28 calendar days have elapsed from the start of practice. A player must take part in at least 20 practice sessions before participation in an interschool game is permitted.
- d. No interschool scrimmage may be held until 21 calendar days have elapsed from the start of practice, and at least 15 practices have been conducted and participated in by each individual player.

## 5. Game Rules

- a. Time periods for 9th grade teams shall be 10 minute quarters. For games of mixed 7th, 8th, and 9th grades in any possible combination, 8 minute quarters shall be played.
- b. The coach is to be permitted on the field during time out periods to check such matters as seem desirable to control the safety of the game, and to use the existing situation as a teaching problem. It is realized that this rule is subject to abuse by over-zealous

coaches. Any coach violating the spirit of this rule should be removed from the program. Coaches using this rule properly, however, can be of real assistance to their players.

- c. Free substitution is to be encouraged.
- d. Other than the above, The National Federation Rules shall apply.

The interscholastic football program, for that matter, any interscholastic athletic program for boys in the junior high school, should, under the administration and supervision of the appropriate school officials, be conducted by men with adequate professional preparation in physical education.

The following recommendations should apply:

1. The interscholastic teams should be coached by certified teachers--preferably teachers of physical education--who are members of the regular staff of the school in which the coaching is done. For these teachers, the coaching assignments should be taken into account in assessing their total teaching loads.
2. The teachers who coach interscholastic teams should possess, in addition to a knowledge of the sports for which they are responsible, a knowledge of (a) child growth and development, (b) the effects of exercise on the human organism, (c) first aid,

and (d) the place and purpose of interscholastic athletics in the educational program. They should have at least a minor in physical education.

In most sports, it would almost seem that the before-mentioned protective devices would eliminate serious accidents. Dietrich says this case is almost true, but not quite. Education is even more important.

1. Coaches, advisors, instructors, physicians, and parents must teach young people the importance of accepting the protective devices.
2. Coaches, trainers, physicians, and parents must effectively teach the value of conditioning and training.
3. Coaches will teach the skills and "tricks of the trade."
4. Coaches, advisors, boys, vice-principals, physicians, girls, and parents should teach the philosophy and perspective of sports (26:23).

#### In-service Clinic

An in-service clinic for all coaches in grades 7, 8, 9, and 10 should be established. The clinic should be set up and conducted by the high school varsity staff. Through lecture, demonstration, and film, they cover every phase of the football program, with particular emphasis on coaching techniques, teaching of skills, and participant safety. The junior high men should be impressed upon with the real values that can be derived from a carefully planned program.

To attend these clinics should be a contractual obligation for the junior high coaches.

This would be a very good time to invite the physicians of the community to add any comments that they feel may be helpful. Also, it helps facilitate a better understanding of the athletic program and its objectives, by the physicians, who many times are its biggest critics.

### Chronological Assessment

Jewett, in speaking of the importance of chronological assessment, stated:

It is equally important that boys themselves understand that chronological age is a poor yardstick. When they do, there will be less likelihood of despair because they have not yet grown or developed as have others of their age. Much as they will still dislike being different, it is easier for them to bear if they can believe that they will not always be different. Perhaps ultimately they will even be able to accept the fact that there are virtues in such differences (38:5).

It would be wiser when planning for youth, or evaluating their needs and behavior, to judge them on the basis of assigned developmental ages, such as those which can be estimated either by an inspection of the bones as revealed by an X ray (usually the hand and wrist) or by a comparison of a boy's state of secondary sexual characteristics with the standards which have been developed by scientists. Although neither of these procedures is practical for widespread use, it is desirable to keep this principle in mind

and to take an estimation of each adolescent's maturity into consideration when forming a judgment or making a recommendation. Though perhaps not very accurate, such an estimation is better than only saying, "this is good for a 14-year-old boy or a 12-year-old boy, etc."



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