

AN INVESTIGATION OF THE PHILOSOPHY OF ATHLETICS
IN THE JUNIOR HIGH SCHOOL

A Professional Paper
Presented to
the Faculty of the Department of Teacher Education
Montana State College

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

by
Robert L. Quenemoen

May 1958

10340
P318
Q341
Cop. 2

TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION	1
Problem	1
Importance of the Study	2
Definition of Terms	4
Procedure	5
II. REVIEW OF RELATED LITERATURE	7
Development of the Junior High School	7
Function of the Junior High School	9
Physical Education in the Junior High School	
Curriculum	12
III. JUNIOR HIGH SCHOOL ATHLETIC PROGRAM	17
Objectives of Athletics in the Junior High	
School	18
False Values of Junior High School Athletics	23
Physiological Aspects of Athletics in the	
Junior High School	26
Administration of Athletics in the Junior High	
School	32
IV. SUMMARY	42
Conclusions	44
BIBLIOGRAPHY	46

CHAPTER I

INTRODUCTION

The junior high school athletic program cannot be an overgrown elementary program, nor can it be a miniature senior high school program. The junior high school must have its own philosophy for providing adequate educational activities for boys in their early teens. The writer has observed that the administration and teaching of athletics in junior high school has been handled by educators with greatly varied philosophies. These varied philosophies handicap the efficiency of the program and are a source of poor public relations.

Problem

The purpose of this study has been (1) to increase understanding of athletic problems and the potentialities of athletic programs, and (2) to stimulate the fuller achievement of educational objectives in junior high school athletics.

In analyzing the problem, the writer concluded that first, a desirable philosophy of values and objectives should be determined. Second, the physiological factors of junior high school athletics should be understood. Third, the framework of organization and administration of junior high school athletics should be designed so the most desirable philosophy of athletics may be put to practice.

Importance of the Study

Progress in social organization and the accompanying changes in the general conditions of living have tended to shift the burden of rearing and training children more and more from home to the school. According to Koos,¹ extra-class activities have been increasingly advocated and accepted as a vital part of the education program. The family is now dependent upon organizations and commercial agencies for such things as recreation, leisure time activities, and for its livelihood. The home has become mechanized, leaving very little work for the growing child. This time and energy must be utilized in such a manner as to develop the child, and to make him a happy and useful citizen.

The schools have been making progress in fulfilling this obligation. This progress has been accompanied by increasing knowledge and understanding of the physical, mental, and emotional development of boys and girls.

Bucher,² in writing on athletics in education, has pointed out that psychology is playing a larger and larger role in education. Modern psychology has exploded the myth of formal discipline. This science pointed out that the

¹Leonard V. Koos, Junior High School Trends, New York, Harper and Brothers, 1955, p. 87.

²Charles A. Bucher, "Athletics In Education," Journal of Educational Sociology, 28:241-242, February, 1955.

mental processes in man function as a unity. Psychology buried the idea that the "physical" was unimportant.

Education should be concerned with the whole individual--the physical, emotional, social, as well as the mental aspects. All are closely interwoven--they cannot be dealt with separately. All this knowledge has had a profound effect upon our schools. Otto³ has indicated that the school curriculum has been revised many times and expanded greatly. New activities have been added. Emphasis has been shifted. According to Otto,⁴ the extra-curricular has become curricular. The modern school is interested in more than just academic instruction commonly symbolized by the 3 R's. Now all aspects of the child are the concern of our schools. The schools have undertaken to guide many facets of juvenile life formerly controlled by the home, the community, the church, and other agencies of organized society. The whole educational picture has changed. The need of more and better leisure-time activities that will contribute to the social and emotional well-being of our youth has been increasing.

The sports program has been one of the methods by which the schools have attempted to give the boys a worthwhile program. Many other activities have combined with

³Henry J. Otto, Elementary School Organization and Administration, New York, Appleton-Century-Crofts, Inc., 1954, p. 83.

⁴Ibid, p. 300.

athletics to give a more complete picture of the school and its activity.

Competitive athletics have become an established institution in the high schools^{and in some cases in colleges} and colleges. In some schools the athletic department has become the public relations center and as a result an overemphasis of athletics has usually taken place. In smaller communities most of the activities have been centered around the school, and the athletic games have become community-centered activities. For this reason, perhaps, the success or failure of athletic games have been and are of much concern to many. This extreme interest on the part of the public has caused excessive public sentiment and overemphasis of athletics.

Definition of Terms

Some terms used in describing the physical activities of a school have often been given different meanings when used by different people, as an example the term "junior high school" has often led to confusion. This definition of terms has been given to clarify the meaning of these terms that the writer has considered to be confusing to the reader.

Physical Education. Throughout the report of this investigation, the term "physical education" shall be interpreted as meaning the sum of the physical activities conducted under the supervision of the school.

Athletics. "Athletics" shall mean all school-sponsored physical activities in the form of competitive games or sports in which the students participate.

Interscholastic Athletics. "Interscholastic athletics" shall refer to competitive games or sports between schools of different communities or cities.

Intramural Athletics. "Intramural athletics" shall mean competitive games or sports played by individuals or teams of one school.

Extramural Athletics. "Extramural athletics" shall be interpreted as the competitive games or sports played between teams from different schools, but from the same city or community.

Junior High School. This is the intermediate school which is designed to meet the needs of pupils between the elementary school and the senior high school. The term "junior high school", as it is discussed in this report, shall include grades seven, eight, and nine.

Procedures

This information gathered for the purpose of increasing the understanding of athletic problems and revealing some of the potentialities of athletic programs, has been limited in this investigation to library research.

In the review of literature related to junior high

school athletics the writer has presented a brief summary of the development of the junior high school and has stated the method of achieving objectives in terms of functions. Physical education has been presented as it is related to the junior high school curriculum.

CHAPTER II

REVIEW OF RELATED LITERATURE

In this review of literature related to junior high school athletics, the writer has tried to summarize the aims, objectives, and mode of operation of the junior high school that have been set up by some of the noted authorities on junior high school education.

The principles of physical education, as brought out in the literature, were considered as they applied to the aims and objectives of junior high school education, and as they influenced junior high school athletics.

The aims and objectives of junior high school athletics have been stated as an integral part of physical education contributing to the education of children.

In presenting this review of literature related to junior high athletics, the writer has tried to avoid controversial points and has presented literature of authorities who the writer feels show a consensus of opinion in their particular areas.

Development of the Junior High School

The decade between 1910 and 1920 witnessed a new form of educational organization, known as the "junior high school." The pressures that brought on the changes

were, according to Noar¹ (1) a need for a school that would hold a larger percentage of older pupils who were dropping out of school at the end of the sixth year and again at the close of the eighth year, (2) a need for a school that could better educate the heterogeneous population that was entering school, (3) a need for a school that would help the children adjust from the elementary school with its home like security to the high school characterized by less student-teacher contact and greater emphasis on academic interests. The junior high school from the very beginning was dominated by a desire to develop a program of education which would effectively meet the needs, interests and abilities of early adolescents. Coxe² has indicated the developmental characteristics of pupils in this period differ from those of pupils in the preceding period and from pupils in the succeeding period. He has summarized the period by the following statements:

1. The beginning of puberty for nearly all pupils.
2. Rapid changes in rate of physical growth.
3. Uneven development in most pupils.
4. Increased individual differences.
5. A struggle for independence.
6. Changes in concept of social role.
7. Emotional stresses.
8. A wider range of interests and a broader outlook.

¹Gertrude Noar, The Junior High School Today and Tomorrow, New York, Prentice Hall, Inc., 1953, p. 3.

²Warren W. Coxe, "Trends in Modern Junior High School," The Bulletin of the National Association of Secondary School Principals, 38:333-339, April, 1954.

It was with this point of view that the junior high school education has developed.

Functions of the Junior High School

Gruhn and Douglass have stated the fundamental ways in which the junior high school operates to achieve its objectives in the terms of "functions." The functions were developed in a study made by William T. Gruhn from the questionnaires returned by twelve leaders in theory and philosophy of secondary education. The functions as they are presented should serve as a basis for understanding the educational program of the junior high school.

Function I: Integration

To provide learning experiences in which pupils may use the skills, attitudes, interests, ideals, and understandings previously acquired in such a way that they will become coordinated and integrated into effective and wholesome pupil behavior.

To provide for all pupils a broad, general and common education in the basic knowledges and skills which will lead to wholesome, well-integrated behavior, attitudes, interests, ideals, and understandings.

Function II: Exploration

To lead pupils to discover and explore their specialized interests, aptitudes, and abilities as a basis for decisions regarding educational opportunities.

To lead pupils to discover and explore their specialized interests, aptitudes and abilities as a basis for present and future vocational decisions.

To stimulate pupils and provide opportunities for them to develop a continually widening range of cultural, social, civic, avocational, and recreational interests.

Function III: Guidance

To assist pupils to make intelligent decisions regarding present educational activities and opportunities and to prepare them to make future educational decisions.

To assist pupils to make intelligent decisions regarding present vocational opportunities and to prepare them to make future vocational decisions.

To assist pupils to make satisfactory mental, emotional, and social adjustments in their growth toward wholesome, well-adjusted personalities.

To stimulate and prepare pupils to participate as effectively as possible in learning activities, so that they may reach the maximum development of their personal powers and qualities.

Function IV: Differentiation

To provide differentiated educational facilities and opportunities suited to the varying backgrounds, interests, aptitudes, abilities, personalities, and needs of pupils, in order that each pupil may realize most economically and completely the ultimate aims of education.

Function V: Socialization

To provide increasingly for learning experiences designed to prepare pupils for effective and satisfying participation in the present complex social order.

To provide increasingly for learning experiences designed to prepare pupils to adjust themselves and contribute to future developments and changes in that social order.

Function VI: Articulation

To provide a gradual transition from preadolescent education to an educational program suited to the

needs and interests of adolescent boys and girls.³

The concepts of the functions have become deeper and broader. Marsh has indicated that the six functions have been accepted and recognized since 1919, but it has not been until recent times that administrators have realized that this philosophy must and can become a reality. The important trends that he has indicated in realization of the functions are:

1. A team work approach by faculty and administration to solution of problems.

2. A continuous evaluation of the program to improve the learning situation; grouping; providing for the gifted; and up grading in skill subjects such as reading, spelling, etc.

3. A constant effort to acquire a thorough understanding of the pupil, his needs, his way of life, his problems--a real guidance approach.

4. A better in-service training program for all teachers, new and old.

5. Programs of parent education designed specifically to help parents to better understand boys and girls.⁴

³W. T. Gruhn and H. R. Douglass, The Modern Junior High School, New York, The Ronald Press Company, 1956, pp. 31-32.

⁴Drayton E. Marsh, "What are Recent Trends in Organization and Administration," The Bulletin of the National Association of Secondary School Principals, 39:64-65, April, 1955.

Physical Education in Junior High School Curriculum

It has been pointed out by Oberteuffer⁵ that modern education includes physical education as a part of the curriculum, and, therefore, physical education as an educational experience is expected to make its contribution to human development. Physical education has a greater purpose than just a force for better metabolism or for greater strength. Furthermore, it is not expected to exist only for relaxation and recreation. Physical education should make a significant contribution to the development of the total person.

McNeely, in discussing physical education as an integral part of education has said:

Physical education, even though unique in some functions, must be integrated into the over-all purpose and general character of the school. Faculties should work as a team to (1) define common goals; (2) to share their knowledge and understanding of boys and girls; (3) to help youngsters see the relatedness of their various school experiences; (4) to avoid undesirable duplications in school work; and (5) to assist each youth in profiting from a rich and balanced school program, according to his individual needs, abilities, and interests. Thus, the physical education teacher and coach participate in faculty case conferences, work as a member of school community committees; communicate effectively with guidance personnel; have access to, use, and furnish data for school records on individual youngsters. They should establish good relations with colleagues in academic subjects and deal

⁵Delbert Oberteuffer, Physical Education, New York, Harper and Brothers, 1951, p. 51.

with students in a manner reflecting total growth and development.⁶

To construct a program of physical education, which reflects the foregoing view on junior high school education and physical education, requires thoughtful effort on the part of the curriculum makers.

Oberteuffer's list of principles that are basic to the development of an effective program of physical education in the junior high school has been given by Gruhn and Douglass.

1. The program should be developed in terms of the interests and abilities of all the pupils. In physical education, the pupils who are poor in ability, the "dubs", and the handicapped have as much right to participation, to good instruction, and to space, time, and equipment as the superior student and the athlete. Every child should be served.

2. The program should seek to develop self-direction, self-determination, and self-control in pupils by allowing them opportunity for decision-making, planning, and active participation in those phases of the program which involve the making of choices. No modern program should consist merely of exercises directed by the adult and of unthinking muscular exercises as the sole outcome to the students.

3. The program should cultivate leadership by allowing ample opportunity for pupils to choose, elect, lead, and follow in the limitless opportunities which play situations provide. The physical education teacher should seek to give children rotating and full opportunities for all to share in leadership.

⁶Simon A. McNeely, "Toward Progress in Secondary Education," School Life, 37:99-101, April, 1955.

4. The program should seek the development of personal resources--creative ability, ability in self-appraisal, resources in self-entertainment and self-sufficiency. In a sense, physical education should whet the appetite of students for continuous lifelong participation in the games, sports, and dances chosen in accordance with differences in age, sex, and physical condition.

5. The program should make a constructive contribution to the development of emotional control. The physical education experience should be fun, and it should produce relaxation, friendship, and understanding.

6. The program should provide for the pupils an important group experience. The physical education teacher is, in a sense, a "group worker." The team, squad, club, or class becomes the social unit which, by using some physical education activity as a medium, may lead to those desirable outcomes in personal development which are peculiarly derivative of group experience. Group standards of behavior, ethical value, and morality can be taught through the multitude of interpersonal relationships which arise in physical education situations.

7. The program should help pupils understand that competition may be used as a means of furthering the goals of a democratic culture. Competition, when ruthless, may be antithetical to things we hold dear, but in the hands of wise teachers it may be controlled to be a healthy force in social growth.

8. The program should help pupils believe in the essential worth of each human being. This thought often has been cited as the very essence of the democratic culture. There are many opportunities in physical education to have children come to know, understand, appreciate, and enjoy one another. Furthermore, this thought suggests that, where there are wide differences in ability, the better performers should help and encourage those who are less skilled. There is danger of developing a hierarchy of superior performers, leaving the poor performer relegated to a hopelessly inferior position. This criterion suggests that we consider the pupil with little ability as good as the star, not in performance, of course, but surely in deserving an equal opportunity to learn and an equal regard while he is learning.

9. The program should allow for progression in learning, with a minimum of repetition in activities, and it should give students consecutive time to learn instead of jumping from one activity to another to maintain interest. It should allow for cooperative student-teacher planning, utilize activities which are inherently interesting, and make provision for the teaching of those "learnings" normally associated with motor activities, such as appreciations, ethical and social controls, health factors, and elements of consumer education related to sports and recreation.

10. The program should seek to preserve and develop the health of its participants. It should never condone the sacrifice of the best health interests of the child for the sake of some irrelevant value. The program should be dependent upon medical cooperation for original classification and thereafter should be fully attentive to the need for medical supervision, accident prevention, emergency care, disease control, and health-counseling.⁷

There is, of course, a wide variety of physical education programs in junior high schools. Irwin⁸ has listed apparatus, aquatics, formal activities, games and relays, more highly organized sports, recreational sports, rhythms and dancing, tumbling and stunts, and suitable activities for junior high school students as representative of the best. The formulation of the curriculum in physical education for any school represents a unique problem itself. Great variations of such factors as time allotment, size of classes, background and interest of pupils, and the training

⁷Gruhn and Douglass, op cit, pp. 108-110.

⁸Leslie W. Irwin, The Curriculum in Health and Physical Education, St. Louis, The C. V. Mosby Co., 1948. p. 135.

of teachers will be found.

The development of the junior high school has been reviewed from its early origin and the pressures that brought about changes have been mentioned. Literature has revealed the fundamental and generally accepted way that a junior high school operates. These fundamentals have been given in terms of functions by Gruhn and Douglass.⁹ It has been pointed out that physical education is expected to make its contribution toward the total educational experience.

In the following chapter, objectives of athletics will be given as they contribute to the objectives of the total program of education in the junior high school. Values and physiological aspects of athletics will be dealt with as they apply to the athletic program.

⁹Gruhn and Douglass, op cit, pp. 31-32.

CHAPTER III

MAJOR FACTORS IN A JUNIOR HIGH SCHOOL ATHLETIC PROGRAM

The Educational Policies Commission¹ has pointed out that with desirable goals and values in view, a sound athletic curriculum can be built. In this chapter the writer has tried to summarize some of the major points of literature that should be considered for those who are formulating objectives or developing evaluative criteria for local programs in school athletics.

School athletics are based upon the inherent need of children and youth for play. Davie has expressed very well the sociologist's viewpoint in regard to the importance of play as a social and biological need:

Play is a biological and social necessity for children. It is the most fundamental thing about a child . . . Play for the child is one of the most serious facts of life; it is a form of work for the young and the basis for all natural education.²

Duncan³ has written that school authorities have long

¹Educational Policies Commission, School Athletics Problems and Policies, National Education Association of the United States and the American Association of School Administrators, 1201 Sixteenth St., N. W., Washington 6, D.C., p. 14.

²Maurice R. Davie, Problem of City Life, New York, John Wiley Sons, Inc., 1932, pp. 678-679.

³Ray O. Duncan, "The Contribution of School Athletics to the Growing Boy," Journal of Educational Sociology, 28:271-274, February, 1955.

recognized children's need for play, although methods for meeting the need have changed considerably. The play need of children gives birth to the sports and athletic urge which becomes so strong about the eleventh or twelfth year. This sports interest has resulted in school recognition and acceptance of responsibility as evidenced by athletic programs of various types in practically all junior and senior high schools. The concept of play and athletics, as being of tremendous importance to the growth of a normal boy, implies the assumption of responsibilities by the school. The school must provide more than just a suitable play ground and gymnasium facilities with the opportunity for students to participate during leisure time. Since a great learning opportunity is likely to present itself during play, the highest type of leadership and guidance should be provided.

To insure efficient leadership and guidance, objectives should be formulated that meet the needs of the students and the communities in which they live.

Objectives of Athletics in the Junior High School

Williams and Brownell⁴ have written that many of the desired outcomes of modern athletics parallel outcomes of general education. Programs of intramural and interschool

⁴J. F. Williams and C. L. Brownell, The Administration of Health Education and Physical Education, Philadelphia, W. B. Saunders Company, 1951, p. 193.

athletics possess inherent qualities which contribute to complete education. Thus educational objectives may be reached through play in a well-planned athletic program.

Athletics should provide an opportunity for all students to engage in an activity. Thus the objectives of athletics should be in terms of their educational values. In writing on athletic objectives for the community, Forsythe has substantiated this point in saying:

Communities constantly should keep in mind the fact that, primarily, an athletic contest is a part of a school program because of its educational implications. When it ceases to have educational value it should cease to be a school function.⁵

Williams and Brownell⁶ have divided objectives of intramural athletics into four areas which the writer has summarized as follows:

1. To Promote Leisure Education. A part of each person's leisure time should be devoted to a wholesome physical activity. Athletics should promote skills in various games and sports intended for use in leisure time while at school and in life after school.

2. To Enrich Social Competence. Athletics establish group relationships in situations that are of vital interest

⁵Charles E. Forsythe, Administration of High School Athletics, New York, Prentice-Hall, Inc., 1954, p. 9.

⁶Williams and Brownell, op cit, p. 194.

to the students. Proper organization and conduct of these activities may serve to develop such desirable qualities as sportsmanship, cooperation, self-reliance, and friendliness.

3. To Develop Group Loyalties. Devotion to a cause enables a person to put forth his best efforts, subjugating his individual interest to the welfare of a group.

4. To Provide Healthful Exercise. Health is normally associated with wholesome living in which exercise constitutes an essential part. Athletics contribute to health by developing interests and skills which all but guarantee continued exercise through participation.

The University of the State of New York has formulated objectives that are worthy of mention and seem to stress individual needs and health problems.

1. Every effort is made to meet the needs of individual pupils.

2. The development of skills that may be used in adult life is emphasized.

3. There is adequate provision for corrective activities to meet the needs of pupils with physical shortcomings.

4. Opportunity is given through the physical education program for developing leadership and other desirable character traits.

5. Health instruction is closely integrated with other subject areas to which it is related.

6. Teachers of health and teachers of physical education help all pupils to understand the wide differences in physical development of members of the class and help those who differ most to gain the security they need.

7. Attention is given to the development of attitudes of sportsmanship on the part of all pupils in both participation and spectator situations.

8. Since pupils tend to consult teachers of health and physical education with regard to individual health problems, these teachers work closely with the guidance and health service personnel of the school.⁷

The foregoing review of objectives has stressed the point that the objectives of athletics must have educational values and has indicated general agreement on such objectives as better health, cultivation of social graces, developing group spirit, better use of leisure time, improvement of attitude, and wholesome living. Nixon and Cozens have substantiated these objectives and have expanded the list of objectives to include the following characteristics of an ideal program of competitive sports:

1. It makes a place for all the group who can profit by participation.
2. It provides a variety of sports and athletics so that there will be activities appropriate to the varying degrees of physical power and vigor, capacity, skill, and experience.
3. It equalizes the competition to maintain the interest of players of all degrees of proficiency, and to reduce the chances of injury in strenuous games.
4. It recognizes the element of competition as a valuable factor in education but it strives to keep the competitive spirit well under control.

⁷The University of the State of New York, A Design for Improving Early Secondary Education in New York State, State Education Department, Albany, New York, 1954, pp.59-60.

5. It stresses cooperation not only within the competitive groups, but also cooperation between the rival groups, in the interest of the game and of the whole number of participants.

6. It recognizes the spectator as a potential hazard and it attempts to educate the spectator so that his influence upon the competitors may be favorable to the promotion of good responses rather than bad.

7. It does not permit the contestant to sacrifice his physical well-being either in the competition or in training for competition.

8. It emphasizes such qualities as modesty, sense of honor and of responsibility, fair dealing, and the attitude of doing one's best.

9. It cultivates respect and friendliness toward the opponent.

10. It attempts in connection with activity to teach principles of healthful living which are basic to human efficiency.

11. It stresses emotional control.⁸

Objectives of athletics have been stated and, the writer believes, agreed upon by nearly all concerned. However, as programs are put to practice such things as the "imperative win" have been given false values to the detriment of the athletic program. The following section will discuss such values in junior high school athletics.

⁸E. W. Nixon and F. W. Cozens, An Introduction to Physical Education, Philadelphia, W. B. Saunders Company, 1935, pp 163-165.

False Values of Junior High School Athletics

Few people will disagree with objectives such as the foregoing objectives in the previous section stated by Williams and Brownell,⁹ but in reaching the objectives often false values are attached. After a review of literature dealing with the false values in athletics, it seemed apparent to the writer that the area of false values was perhaps the most controversial area in junior high school athletics. In this section the writer has tried to point out some of the false values and the difficulties in evaluating an athletic program.

Fait has shown the many factors to be considered in evaluating athletics and the difficulty in singling out the effects of any one:

It is difficult to determine the effect of winning or loosing a game or even being a competitor will have upon the participant. How a player responds and the educational implication of the situation undoubtedly depends upon many factors among which will be the type of coaching, crowd response, parental attitude, and past experiences.¹⁰

Such variables make it difficult to discuss values in athletics with a common point of view.

⁹Williams and Brownell, op cit, p. 194.

¹⁰Hollis F. Fait, "Needed a Policy on Junior High Interschool Athletics," Journal of Health, Physical Education, and Recreation, 21:20, October, 1950.

The Educational Policies Commission¹¹ has pointed out, that when a student body attaches false values to the importance of interschool athletics, the entire school program may be disrupted. Under the guise of school spirit, waves of hysteria may accompany athletic contests. A conviction of the necessity for winning permeates the student body, players, coaches, and community.

In such an atmosphere, athletes are excessively flattered and publicized. Coaches, administrators, and officials become public targets for hysterical sentiments and the opposing team may be regarded as hated rivals and treated as invading enemies. In short, moral character is replaced by primitive behavior.

Overemphasis on winning is a dangerous false value. When winning is overemphasized to the point that cheating, trickery, or unsportsmanlike acts are considered, opportunities for citizenship training are lost.

The junior high school athletic program, whether it be an interschool or intramural program, will have players who are outstanding and those who are awkward or underdeveloped. The writer feels that much personality damage may be inflicted with both extremes. Placing a false value on athletics often subjugates the non-athletes and destroys the balance of values

¹¹Educational Policies Commission, op cit, pp 6-7.

of the star athlete. In either case, the true life perspective is disrupted and an educational loss results.

In writing on interscholastic athletics, Morris has said, "Because of its very nature a highly competitive sports program is selective in its choice of participants. For every boy who participates, 30 or 40 are relegated to the spectator stands and as the boys grow out of the elementary class the ratio becomes higher."¹²

When such a program is the practice, the over-all values of physical fitness are diminished. First of all, most of the popular highly competitive sports such as football and basketball are not good carry-over sports, as they will not likely be played after school years. Second, as has been pointed out, a highly competitive type program does not reach the multitude of students in a school.

Morris¹³ has pointed out that coaches are often trapped themselves. He has indicated that most coaches were players while they were in school and that their efforts emphasized actual playing and not the philosophy and physiology of play and exercise. These coaches have responded to public pressure by turning physical education classes, in both high school and junior high school, into training grounds for varsity teams.

¹²Mortimer H. Morris, "Does Sports Equal Fitness," The New Republic, 136:14-15, April 29, 1957.

¹³Ibid, p. 15.

The writer believes some of the aforementioned false values and bad practices have been over-stated, but their points were well-taken. The false values and bad practices seem more apparent in the interscholastic athletic program than in an intramural athletic program. It has been the writer's observation that coaches and personnel working with interscholastic teams have often placed higher values on the game and how it is played, than on the educational values of the game, and thus with the consequent shift in the balance of values.

As false values have been shown to insidiously creep into the program, the writer also wishes to point out that physiological damage may be done if this area is not given due attention.

Physiological Aspects of Athletics in the Junior High School

The physiology of athletics has been a moot question for many years. During the early part of the twentieth century, heart disease and heart enlargement were thought to be a result of participation in athletics. This view was brought out by Steinhaus in 1933, based on a review of literature and is summarized in the statement:

It appears to the present writer that the mass of evidence favors the view that in certain individuals, exercise of the endurance form will induce a growth

of heart muscles. This is more likely to occur in the young, will regress at least in part with the cessation of training, and is very likely an asset to the individual in the pursuit of his sport.¹⁴

Investigation of athletics up to 1933 was done largely with college and professional athletes. In more recent years, investigations have seemed to refute any real positive relationship of athletics to heart disease. In 1949, two doctors, Wolfsee and Digilio said, "Yet, at no time have we observed any relationship between athletics per se and heart disease."¹⁵

A study in 1948 by Wilson for the National Education Association pointed out that, "Precluding accidents, a normal, healthy child cannot do himself permanent organic injury by physical exertion."¹⁶ However, from the point of view of health, it is important to remember that most children of upper elementary and junior high school age are in a period of rapid growth with often consequent bodily maladjustment, emotional stress, and mental readjustment. These boys, because they are bigger and more mature, are the ones who comprise the competing teams. Today's Health has pointed out

¹⁴Arthur Steinhaus, "Chronic Effects of Exercises," Physiological Review, 18:103-117, January, 1933.

¹⁵Joseph Wolfsee and Victor Digilio, "The Heart in the Athlete," Journal of Health and Physical Education, 20:8-9, January, 1949.

¹⁶Charles Wilson, Health Education, National Education Association and American Medical Association, Washington D.C., 1948, p. 52.

the susceptibility of danger of organic injury to youth of this age by intensive athletics in the statement:

Athletic programs developed for high school and college players are not suitable for immature children, and knowledge of child growth and development should guide in determining modifications appropriate for grade school youth. We know that during this period there is only partial ossification of bones, with the healing hazard after injury to the growth areas of the bone which cannot be disregarded. Orthopedic surgeons feel that this is also a time when the individual is particularly vulnerable to joint injuries.¹⁷

In 1949, the American Association for Health, Physical Education, and Recreation, and the Society of State Directors of Health, Physical Education, and Recreation decided to coordinate the work of their respective committees and make a comprehensive study of the problem of organized competition for children. Their study was made in cooperation with The Department of Elementary School Principals, National Education Association, and the National Council of State Consultants in Elementary Education. Representatives of all four organizations worked together as the "Joint Committee on Athletic Competition for Children of Elementary and Junior High School Age." A sub-committee conducted a survey to determine the opinions of physicians, including appropriate specialists, on the kind and extent of athletic participation desirable for grade and junior high school youth. The survey was concerned

¹⁷ _____, "Grade School Athletics," Today's Health, 28:1, January, 1950.

mainly with:

1. The specific factors usually cited as influencing the kind and extent of athletic participation desirable for this age group.

2. The athletic activities and plans for administering them that would best meet the needs of elementary and junior high youth.

For the reader's information, the summary and conclusion of the committee, based upon responses to the questionnaire and with their comments, are presented here to show the general attitude of physicians regarding care to be taken to prevent organic injury at this age.

1. A vast majority of physicians in each of the professional groups understand and appreciate the potential values of athletics and believe strongly in a well-conducted sports program in the schools.

2. There is a general agreement among the medical groups, closest to the problem of appropriate athletic activity for upper grade and junior high school youth, that proper supervision and control is basic to safe and healthful experiences in any form of competitive sports.

3. The likelihood of carrying activity past the stage of healthful fatigue to one of harmful exhaustion was regarded by a high proportion of physicians in all of the groups concerned as the most significant factor in determining the kind and extent of athletic activity for this age group. Vulnerability of joints and the hazard of injury to the epiphyseal areas were rated next in importance by the majority of the groups. Orthopedic surgeons rated these latter factors as high proportionately as the other medical groups scored the former.

4. An intramural or combination intramural and

invitational sports administration was recommended, by a large majority of physicians in every group, as the most satisfactory pattern of organization to meet the needs of this age group.

5. A strong minority of physicians in most of the groups feel that certain sports, under judicious administration and regulation, could be conducted safely on an interschool basis, such as baseball, softball, volleyball, swimming, and gymnastics.

6. Football was the only listed activity consistently labeled by large proportion of physicians as an activity to be prohibited at this age level. A number did not oppose the sport on an intramural or combination intramural and invitational basis, but only a small fraction felt that football was suitable as an interschool activity for upper grade and junior high school youth.

7. Many comments emphasized the importance of considering individual differences--size, maturity level, body type, skill, and the like.¹⁸

Very little has been written on the relationship of athletics to the nervous system and the endocrine system. Allen, Alexander, and Means have stated that, "Competition strains and overstimulates. It creates anxiety and worry which results in mental and physical imbalance and tension."¹⁹ It is also known that during adolescence the parts of the body systems do not grow or mature at the same rate. Both views would indicate that care should be taken to avoid competition

¹⁸American Association of Health, Physical Education, and Recreation, Desirable Athletic Competition for Children, Department of the National Education Association, 1201 Sixteenth St. N.W., Washington D.C.

¹⁹C. F. Allen, T. R. Alexander, and H. W. Means, Extra-Curricular Activities in the Elementary Schools, St. Louis, Webster Publishing Company, 1937, p. 147.

carried to this extreme.

Mitchell,²⁰ in the case against interscholastic athletics, has emphasized that growing boys are likely to be harmed physiologically. Boys of eleven to fifteen are growing rapidly and no extra stresses should be placed upon them. Their heart and powers of endurance have not yet caught up with their increase of size and weight. They are resilient, play hard, tire quickly and rebound quickly. Left to themselves, boys will alternate short periods of exertion and rest in their play. Under the excessive demands of highly organized competition, they will continue beyond the normal limits of their endurance.

The highly specialized technical skills developed in interscholastic athletics are not essential to good health and as Whitton has said, "It is certain that no beneficial health outcomes have been proved. We have to look further than the health motive to find justification for an extensive (athletic) program."²¹

It has been pointed out that a normal healthy child cannot do himself permanent organic injury by physical exertion, if the exertion is not carried past the stages of healthful fatigue. However, it has also been pointed out that athletic

²⁰Elmer D. Mitchell, "The Case Against Interscholastic Athletics in the Junior High School," School of Education Bulletin, University of Michigan, November, 1951, p. 1.

²¹Charles Whitten, Interscholastics, The Illinois School Association, Chicago, 1950, p. 176.

programs must take into consideration the rapid growth of boys of this age group, and remember the vulnerability of joints and the hazard of injuries to areas of bone growth. It has been emphasized that competition should not be carried to the point that it causes tensions or undue strain at this immature age. It has also been noted that technical skills are not essential for good health.

Since this has been shown to be a dangerous period, it is imperative that junior high schools have competent administration and supervision of athletics.

Administration of Athletics in the Junior High School

The principal, as chief education officer of his unit, is concerned first with the philosophy that the over-all progress in development of all pupils in his charge, within the limits of their individual abilities, is the greatest possible. The American Association for Health, Physical Education, and Recreation²² has pointed out that physical education is one area of the school curriculum that is of great importance for its contribution to the current, as well as future, well-being of the pupils, and, therefore, merits

²²American Association for Health, Physical Education and Recreation, Administrative Problems in Health Education, Physical Education and Recreation, (hereafter referred to as Administrative . . .), Department of the National Education Association, 1201 Sixteenth St. N.W., Washington 6, D.C., p. 99-100.

primary consideration in the thinking of the principal. The administration of the physical education department calls for a judicious distribution of the staff, equipment, facilities, and time so that all phases of physical education may receive attention. The sound, wholesome development of every young person enrolled should come first, even at the expense of interschool and intramural schedule if necessary.

Most principals will agree that all schools should develop and maintain a well-organized program of competition in athletics, as a logical and psychological addition to the regular instruction work. { Athletics should give young people of special aptitude and excellent performance an opportunity to exhibit their achievement and to try out their prowess under actual game conditions. How well they fare may be the deciding factor for some vocationally, or for others in their choice of recreational sports. Concomitant values from these games and meets, accruing to the whole student body, should include an appreciation of the spirit of teamwork and of fairplay in both theory and practice, and an upsurge of school spirit. The only real justification for athletic activities being included in the educational program is their educational contribution to the participants. If they have no educational value to the pupils participating, the school authorities have a moral obligation to see that they are dropped as school activities.

There are fundamental principles that should be incorporated within the framework of minimum standards for the conduct of a sound program of athletics. A committee on Interscholastic Athletics has formulated the following fundamental principles as "Cardinal Principles of Athletics":

1. Be closely coordinated with general instructional program and properly articulated with other departments of the school.

2. Be sure that the number of students accommodated and the educational aims achieved justify the use of tax funds for its support and also warrant the use of other sources of income.

3. Provided, that the time and attention which is given to the collection of such funds is not such as to interfere with the efficiency of the athletic program or of any other department of the school.

4. Confine the school athletic activity to events which are sponsored and supervised by proper school authorities so that any exploitation or improper use of prestige built up by school teams or members of such teams may be avoided.

5. Be planned in such a way as to result in opportunity for many individuals to explore a wide variety of sports and set reasonable season limits for each listed sport.

6. Be controlled in such a way as to avoid the elements of professionalism and commercialism which tend to grow up in connection with widely publicized "bowl" contests, barnstorming trips, and interstate or intersectional contests which require excessive travel expense or loss of school time or which are claimed to be justified by educational travel values.

7. Be kept free from the type of contest which involves a gathering of so-called "all stars" from different schools to participate in contests which may be used as a gathering place for representatives of certain colleges or professional organizations who are interested in soliciting athletic talent for their teams.

8. Include educative exercises to reach all non-participating students and community followers of the school teams in order to insure a proper understanding and appreciation of the sports skills and the need for adherence to principles of game ethics.

9. Encourage a balanced program of intramural activity in grades below the ninth to make it unnecessary to sponsor contests of a championship nature in these grades.

10. Engender respect for the rules and policies under which the school conducts its program.²³

The Educational Policies Commission²⁴ has pointed out that the core of the athletics in junior high school, as elsewhere, should be the instruction in sports that takes place in the required classes in physical education. After school games and noon-hour games should serve as a place to apply what has been learned.

The program should offer many options. Young people like to explore many possibilities for future specialization. This variety of offerings also serves to broaden the appeal of intramurals so that it will reach more people. Most boys or girls of junior high school age develop interests in activities they can take part in and understand.

Junior high school students, with their increased social interests and more highly developed athletic skills, can

²³American Association for Health, Physical Education, and Recreation, "Cardinal Athletic Principles," Journal of American Association for Health, Physical Education, and Recreation, 18:435 and 557, September, 1947.

²⁴Educational Policies Commission, op cit, p. 35-36.

profit from informal games with children of other schools. Sports days and invitational games with nearby schools should be regarded as an occasional extension of the intramural program to extramural dimensions rather than as a form of interscholastic competition.

Pressure to involve junior high schools in a varsity type program has been great. It has been the writer's observation that senior high school coaches and promoters of senior high school athletics often encourage the junior high school program to organize along lines that favor a building program for the specific purpose of grooming prospective athletes for the high school. A program of this type generally favors picking a "first team," and ends in varsity type playing with the few that are outstanding monopolizing the facilities and the coach's time.

Ashcraft²⁵ has pointed out that it is administratively unwise to have the intramural director also be a coach of an interscholastic team, because of the strong possibility that the intramural program will be slighted in favor of the interscholastic team.

People tend to select for voluntary pursuits those

²⁵J. Holley Ashcraft, "A Sane Competitive Program for Junior High School Boys," Journal of American Association for Health, Physical Education and Recreation, 24:20-21, November, 1953.

activities in which they find success. Knapp and Combes²⁶ have said that specialization can start too soon. The varsity-type team, therefore, attracts two types of boys: (1) those who stand out among their peers because of interest and ability already developed through previous experiences, and (2) those who have great ability because of physical maturity.

Boys who are potentially superior players may pass up a sport on an interscholastic basis because they feel that they have little chance for success. They may be inferior players only temporarily because of lack of experience or physical maturity. A program that provides experience for all, or almost all, tends to stimulate and to keep alive the interest of many boys.

It is the opinion of the American Association for Health, Physical Education, and Recreation²⁷ that a varied and appealing intramural sports program is an essential key to the problem of athletic competition in the junior high school. However, if it is felt that this type of an intramural program does not completely meet the needs for ninth

²⁶Clyde Knapp and Harry A. Combes, "Elementary Interscholastic Basketball," Journal of American Association for Health, Physical Education, and Recreation, 24:12-13, November, 1953.

²⁷American Association for Health, Physical Education and Recreation, Administrative . . ., op cit, p. 122.

grade students, interschool athletic schedules might be considered. Before establishing interschool competition, however, school officials must be certain that certain conditions for control etc. must be considered for the interschool athletic program. The following have been suggested by the Association:

(1) trained leadership is available; (2) physical examinations and injury insurance for athletes are provided; (3) parental permission is obtained approving player participation; (4) adequate financial support is assured; (5) proper practice and playing facilities are available; (6) first-quality athletic equipment and supplies are on hand; (7) seasons are limited to not more than an eight-week period with no tournaments; (8) three-week conditioning periods are required before the opening game; (9) practice sessions are limited to one hour per day; (10) insured transportation other than private passenger cars is provided for all travel; (11) competition is equalized by classification of players according to age, height, weight, or similar methods; (12) travel is limited to nearby schools with no overnight trips; (13) contests are not held at night; (14) no special appeals for funds are made to students, parents, or community for the support of athletic teams; (15) regularly qualified game officials are assigned to contests; and (16) eligibility and award regulations are clearly established within the school.²⁸

If school officials cannot provide the preceding conditions for the control of athletic competition in junior high school, it is doubtful that interschool athletic competition should be attempted.

Williams and Brownell²⁹ have said that leadership in

²⁸Ibid, p. 122.

²⁹Williams and Brownell, op cit, p. 220

any education activity is essential, but leadership in athletics is of paramount importance. Often the athletic coach, who might be a potent force in character education, is employed for his ability to produce winning teams. Working under pressure to win games subordinates his objective of character values to the imperative winning.

In general, the qualifications of a coach are essentially no different from those required in any other teacher. He must be equipped technically in his specialty and conform in attitudes and appreciations to the highest of moral standards of educational practices.

All coaches must be full-time teachers and teachers with a physical education background, if possible. Coaches of athletics deserve the protection and support of boards of education and administrative authorities, rather than an applause or condemnation that depend upon the varying success of the teams.

Sportsmanship is commonly accepted as one of the greatest values that can be gained from athletics. It is the opinion of the writer that the teaching of sportsmanship is often slighted and is too often taken for granted by older people who fail to realize that it is at the junior high school age, perhaps more than any other, that such values are developed. Oberteuffer has said that, "Many must work for sportsmanship and many would if each knew what to do. There is

some expert buck-passing going on with students blaming townspeople, coaches blaming principal, and players saying, 'they started it first.'³⁰

The principal must, as administrative head, establish principles of good sportsmanship in the minds of the entire staff and those who associate with school activities. The sportsmanship shown reflects the administrator's leadership.

The coach should carry most of the burden of developing sportsmanship. In the school and in the community he is the leader and sets the pattern for the understanding of sports and all behavior concerned with it. In order for good sportsmanship to be the guiding principle in athletics, for the team, student body, community, and press, he must know what good sportsmanship is and must teach it to all through practice. To teach sportsmanship requires a conscious effort and a well-organized plan of approach to the problem.

The American Association for Health, Physical Education, and Recreation³¹ has pointed out that the school must accept the major role in shaping the program of athletic competition for youth. This would, of course, include working with other agencies to make known to more people the basic

³⁰Delbert Oberteuffer, "Sportsmanship--Whose Responsibility?", Bulletin of the National Association of Secondary School Principals, 32:9-22, October, 1948.

³¹American Association for Health, Physical Education, and Recreation, Administrative . . ., op cit, p. 123.

reasons for athletic competition in schools, making it clear that athletic competition seeks positive educational outcomes.

In this chapter four major factors of school athletics were considered. The objectives of junior high school athletics were shown to parallel and contribute to the overall objectives of the junior high school. The writer has pointed out that the values in athletics may, however, have a negative effect on the educational program, if they do not make their contribution to the educational objectives. It was shown that the physiological dangers such as excessive tension, over-exertion, and injury to areas of bone growth in junior high school athletics are significant enough to make this area one of major importance. As the objectives, false values and physiological aspects of junior high school athletics were reviewed, they were shown to be areas that need administrative attention and constant supervision.

CHAPTER IV

SUMMARY

It was the purpose of this study to increase the understanding of athletic problems and to stimulate the fuller achievement of educational objectives in junior high school athletics.

The investigation revealed that most junior high school athletic programs consisted of three component parts: inter-school sports, intramural sports, and physical education, and all are a part of the general education program. School athletics, as a part of the education program, should be considered a school responsibility and can be justified only for its educational values. Every effort should be made to keep it free of the recognized bad practices or false values that tend to arouse so much public criticism and decrease the program efficiency.

Junior high school students are eager to participate in all sorts of activities, but most are not ready to take part in the very vigorous sports for a sustained length of time. It must be remembered that they do not have fully developed heart and lungs, nor is bone growth complete.

The junior high school athletic program should be consistent with the function of integration by following through with the elementary program and anticipating the high school program. The program must meet the needs of the rapidly

changing boys. The core of the athletic program should be in the required classes of physical education where physical skills are learned. The intramural program should be of voluntary nature and offer many options to get as many students participating as possible. If the intramural program is felt to be insufficient for a reasonably large number of boys, interscholastic athletics may be planned. The interscholastic competition in the junior high school should not be organized as for varsity-type teams, nor should it be organized to serve as a building program for high school teams. Junior high school interscholastic athletics should merely be an informal supplement to the intramural program.

Athletic programs should be conducted under full time qualified leadership of physical education teachers. Well meaning people often do untold amounts of damage because they know little about child growth and development, do not comprehend the values sought in athletics, or do not place the welfare of the children in their care above all other aspects of the program.

It is an important rule to follow that the intramural director should not be a coach of interscholastic teams. This arrangement assures that the intramural director will give full-time to that program and not neglect it to give more time to the interscholastic teams.

Participants should also be allowed to develop other

interests and skills. They should have freedom for broad and varied experiences. It must be remembered that other school or home activities may be just as valuable to the student's emotional growth and development as school athletics.

Conclusions

In this investigation the writer has summarized some of the points emphasized and generally agreed upon by leaders in the field of junior high school education as they were disclosed in a review of literature. From the text of this investigation, and information disclosed during the investigation, the writer has made the following conclusions:

1. Athletic programs are worthwhile and make important contributions to objectives of education.

2. The nature of the athletic program in the junior high school should follow the principles of an intramural program with everyone participating.

3. Interscholastic athletics should have a place in the program only if it is felt that the intramural program is not meeting the needs of a sufficient number of students to warrant it, and then should be very carefully guarded against developing into a varsity type program.

4. Administration and supervision of athletics should be by those who will insure that educational objectives will be foremost and not be subordinated to the success of varsity

sports in terms of number of games won or lost. Administration and supervision should also insure the safest playing conditions and the best health practices.

BIBLIOGRAPHY

BIBLIOGRAPHY

- Allen, C. F., Alexander, T. R., and Means, H. W., Extra-Curricular Activities in the Elementary Schools, Webster, Publishing Co., St. Louis, 1937, 604 pp.
- American Association for Health, Physical Education and Recreation, Administrative Problems in Health Education, Physical Education and Recreation, Department of the National Education Association, 1201 Sixteenth St. N.W., Washington 6, D.C., Washington, 1953, 136 pp.
- American Association for Health, Physical Education and Recreation, "Cardinal Athletic Principles," Journal of American Association for Health, Physical Education, and Recreation, Department of the National Education Association, 1201 Sixteenth St. N.W., Washington 6, D.C., 18:435-436, September, 1947.
- American Association for Health, Physical Education, and Recreation, Desirable Athletic Competition for Children, Department of the National Education Association, 1201 Sixteenth St. N.W., Washington 6, D.C., 46 pp.
- Ashcraft, J. Holley, "A Sane Competitive Program for Junior High School Boys," Journal of American Association for Health, Physical Education, and Recreation, 24:20-21, November, 1953.
- Bucher, Charles A, "Athletics In Education," Journal of Educational Sociology, 28:242, February, 1955.
- Coxe, Warren W., "Trends in Modern Junior High School," The Bulletin of the National Association of Secondary School Principals, 38:333-339, April, 1954.
- Duncan, Ray O., "The Contribution of School Athletics to the Growing Boy," Journal of Educational Sociology, 28:271-274, February, 1955.
- Educational Policies Commission, School Athletics Problems and Policies, National Education Association of the United States and the American Association of the Administrators, 1201 Sixteenth St. N.W., Washington 6, D.C., 84 pp.

- Fait, Hollis F., "Needed a Policy on Junior High Interscholastic Athletics," Journal of Health, Physical Education, and Recreation, 21:20, October, 1950.
- Forsythe, Charles E., Administration of High School Athletics, Prentice-Hall, New York, 1954, 462 pp.
- Gruhn, William T., and Douglass, Harl R., The Modern Junior High School, The Ronald Press Co., New York, 1956, 421 pp.
- Irwin, Leslie W., The Curriculum in Health and Physical Education, The C. V. Mosby Co., St. Louis, 1948, 391 pp.
- Knapp, Clyde, and Combes, Harry A., "Elementary Interscholastic Basketball," Journal of American Association for Health, Physical Education, and Recreation, 24:12-13, November, 1953.
- Koos, Leonard V., Junior High School Trends, Harper and Brothers, New York, 1955, 171 pp.
- McNeely, Simon A., "Toward Progress in Secondary Education," School Life, 37:99-101, April, 1955.
- Marsh, Drayton E., "What are Recent Trends in Organization and Administration," The Bulletin of the National Association of Secondary School Principals, 39:64-65, April, 1955.
- Mitchell, Elmer D., "The Case Against Interscholastic Athletics in the Junior High School," School of Education Bulletin, University of Michigan, Ann Arbor, November, 1951.
- Morris, Mortimer H., "Does Sports Equal Fitness," The New Republic, 136:14-15, April 29, 1957.
- Noar, Gertrude, The Junior High School Today and Tomorrow, Prentice-Hall, Inc., New York, 1953, 373 pp.
- Nixon, E. W. and Cozens, F. W., An Introduction to Physical Education, W. B. Saunders Co., Philadelphia, 1935, 262 pp.
- Oberteuffer, Delbert, Physical Education, Harper Brothers, New York, 1951, 374 pp.
- Oberteuffer, Delbert, "Sportsmanship - Whose Responsibility," Bulletin of the National Association of Secondary School Principals, 32:9-22, October, 1948.

- Otto, Henry J., Elementary School Organization and Administration, Appleton - Century - Crofts, Inc., New York, 1954, 719 pp.
- Steinhaus, Arthur, "Chronic Effects of Exercise," Physiological Review, 18:103-117, January, 1933.
- The University of the State of New York, A Design for Improving Early Secondary Education in New York State, State Education Department, Albany, New York, 1954, 117 pp.
- Whitten, Charles, Interscholastics, The Illinois School Association, Chicago, 1950. 271 pp.
- Williams, Jessee F., Brownell, Clifford L., The Administration of Health Education and Physical Education, W. B. Saunders Co., Philadelphia, 1951, 439 pp.
- Wilson, Charles, Health Education, National Education Association - American Medical Association, Washington D.C., 1948. 368 pp.
- Wolffee, Joseph, and Digilio, Victor, "The Heart in the Athlete," Journal of Health and Physical Education, 20:8-9, January, 1949.
- "Grade School Athletics," Today's Health, 28:1, January, 1950.