THEORY OF COACHING STUDY GUIDE

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E-version created May 2015

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Dr. Peter Goplerud III, Dean, Law School, Drake University

EDMA 171

THEORY OF COACHING

A course designed to address the differences in various levels of competitive sports, the personal roles that coaches should exhibit, the professional roles expected and the organizational influences on the world of a coach.

Three Semester Hours of Graduate Credit

Course Materials

1 Important Information Download

1 Study Guide (pdf) Download
with Related Readings

1 MS Word Document Download
with Answer Pages for Word Processing

All videos are streamed online by Championship Productions

"Set aside your dreams for your children and help them attain their own dreams."

-- Author Unknown

Drake University Distance Learning

Drake University's Division of Distance Learning, part of the School of Education, Continuing Education and Professional Development department, provides educational outreach to PreK-12 educators. A complete listing of our offerings for coaches and physical educators may be found below.

Video Courses

-Theory of Coaching - EDMA 171
-Ethics in Sports - EDMA 172
-The Teaching Coach - EDMA 173
-Adapted Physical Education - EDMA 174
-Parent-Athlete-Coach Alliance - EDMA 175
-Step Up and Lead – EDMA 176
-Team Building for Success – EDMA 177
-Relevant Elementary Physical Education – EDMA 272
-Real Coaching II: Honing the Competitive Edge – EDMA 277
-Rev Up the Revolution: Your Middle School PE Game Plan – EDMA 278

Our Online Course Listing
https://www.drake.edu/cepd/distance/onlinecourses/

Your learning experience in the Distance Learning Division is enhanced with the professional support of evaluators who have been trained in course assessment and in current related issues. We offer telephone and online support for any questions you may have regarding the completion of your course work.

Drake University School of Education
Continuing Education and Professional Development Distance Learning
2702 Forest Avenue Des Moines, IA 50311
1.800.76-TEACH (Toll free)
https://www.drake.edu/cepd/

PREFACE

The faculty and staff of Drake University School of Education are proud to present our distance learning course “Theory of Coaching” (EDMA 171). This three-hour graduate credit course is a part of our **REAL COACHING** video series for teachers who coach and coaches who teach. It comes at a point in history when the face of the University is changing rapidly from a traditional set of fixed properties into a “space” where education is presented in many innovative ways! Continuing education and distance learning opportunities are presented each year by Drake staff to thousands of teachers across the United States. Our **REAL COACHING** video series is a major effort to complete a full set of offerings by assisting those whose time and resources do not permit them to attend class on a college campus.

REAL COACHING is the first complete video correspondence series that was designed, written, and produced to assist those in the world of sports. The idea for the series started with Dr. Carl Miller’s suggestions and directions. As a long- time director of sport programs and an advisor to many national organizations, Carl encouraged the staff at Drake to consider taking a major responsibility in the education and re-education of the nation’s coaches.

What followed was a series of planning meetings, discussions, journeys and production sessions that led to the finished program that you see today. Many talented men and women from the sports world and the education world came together to make the **REAL COACHING** series possible.

As you view, discuss, review and respond to the ideas and athletic concepts in this video correspondence series, be encouraged by the team behind the scenes. Drake support staff and **REAL COACHING** producers believe in this course and the value of teachers and coaches involved in the future of youth sports programs needed for our youth. We welcome your comments and evaluations!

"Sports and other forms of vigorous physical activity provide educational experience which cannot be duplicated in the classroom. They are an uncompromising laboratory in which we must think and act quickly and efficiently under pressure and then force us to meet our own inadequacies face to face -- and to do something about them -- as nothing else does. In any athletic activity we are thrown upon our own resources to succeed in the face of a strong and immediate challenge. Sports resembles life in capsule form and the participant quickly learns that his/her performance depends upon the development of strength, stamina, self-discipline and a sure and steady judgment."

- Supreme Court Justice Byron "Whizzer" White --
University of Colorado '38

THEORY OF COACHING

Goals and Tips for Preparation of Study Guide
Prepared by Michael K Bryant, Director of Training

Introduction - Welcome to Theory of Coaching, a unique video course designed to introduce you to various perspectives on coaching. As you prepare to complete each of the five units in the course of study, it is recommended that you read carefully the assignment questions *in advance* to help focus your readings and viewing of the enclosed literature and videos.

To help you get the most benefit from this course, work to *apply* the theories and ideas presented in each unit to your own personal and professional needs and resources. Many of the assignments ask you to apply course content to your own particular situations, and you may find it profitable to spend time reflecting on your related coaching experiences so that your answers can reflect specific, detailed concerns which are relevant to the topics presented in each assignment. This sense of connection between the ideas of Theory of Coaching and your own experience will give more depth to your responses - and will optimize your growth as a result of taking this course.

We wish you much lasting success in continuing to apply the learning you bring from Theory of Coaching to your future professional development!

Course Description - This three semester hour graduate course is intended to provide the foundation for those who coach sports at any level. Through a series of video presentations, readings, Internet activities and discussions, the learners will gain insight into the many intangibles of coaching that, until now, could only be learned through the trial and error of experience. The course addresses the differences in levels of competitive sports, the personal roles that coaches should exhibit, the professional roles expected and the organizational influences on the world of a coach. Purpose of Course for Prospective Students: As a result of enrollment in Theory of Coaching, students will be able to explain and defend the role of the coach and the appropriate coaching behaviors to utilize with various age groups. Students will be able to apply the instructional techniques and theories presented directly into their classrooms and sport programs

Unit 1 - Theory of Coaching and Competition

In the first two units, you will be asked to consider sociological dimensions of coaching and competition. As you watch the presenters from the opening video sessions, you may want to note their key points, as well as highlights from your own experience which support or challenge the ideas set forth.

Assignment 1:

- In your reading and viewing of the streaming videos (see page xiv for access information), you will recognize that the sporting experience is viewed from different perspectives by various members of your constituency.

-You will be presented with two opposing ideologies, "sport as an inspiration," or functionalism theory, and "sport as an opiate of the masses," also referred to as conflict theory. In your responses you will be asked to define each view and support or refute each view with examples from your own experience.

-With these tasks in mind, here and throughout your course work, you may wish to take notes related to these questions as you do the readings and watch the related videos to help support your answers with specific occurrences from your own coaching. How do your own experiences relate to the content of the presentations? In what ways can you use your experience to write detailed responses?

Assignment 2:

-You will be asked to look at the relationship between the approach (orientation) that participants have toward sports and their level of competitive behavior.

-Again, work to include examples from the video, as well as from your own professional experience. For instance, consider the differing approaches/orientations that your athletes have toward sports and how these, in turn, affect their competitive performance.

Assignment 3:

-You will be asked to interview your principal or athletic director about the expanded knowledge base in physical education, exercise science and sports' management, and how that has positively affected your programs.

-You may find it helpful to prepare ahead of time written questions for this interview which address these issues. Try to write your questions so that you can obtain observable changes which have resulted from your program’s expanded knowledge base. You may find it helpful to write open-ended questions, that is, questions which help the principal or athletic director to explore their areas of knowledge, and avoid questions which can be answered simply "Yes" or "No."

Unit 2 - Professional & Personal Coaching Roles

What roles do you find define yourself in your professional capacity? What personal roles are involved as a coach of student-athletes? In your preparation for responding to the assignments in the second unit, spend time reflecting on these considerations as they apply to the ideas central to each of the presenters. Try to call to mind related occurrences which may have helped you define these various roles, and consider how these incidents relate to the ideas of each presentation.

Assignment 4:

-Prior to beginning this assignment, you may find it helpful to review the various roles you fulfill each day as a coach. As you watch the video and read the article "Roles of a Head Coach," consider taking notes on the personal and professional roles you are asked to fulfill. What are your priorities? How do they relate to those discussed in the videotape and the reading?

-As you prepare to watch the accompanying video, you may find it helpful to review the various roles you fulfill from day to day as a coach. As you watch this video segment, consider taking notes on the personal and professional roles you are asked to fulfill. What are your priorities? How do they relate to those discussed in the video?

-You will next be asked to complete Valerie King's Ethical Behavior Scale for yourself and for a coach you know personally. Look for your own personal discoveries about ethics as you complete this scale.

-Finally you will be asked to discuss coaching burnout, and what you would recommend to prevent it. As you prepare for this section, consider the presentations in light of your own personal and professional needs.

Assignment 5:

-In your readings and viewing the video for the fifth assignment, you will be asked to prepare an outline for an oral presentation on the topic of "Parent-Coach Relationship in Sport". In preparation for these presentations and your response, consider how you have dealt / will deal with pressure from parents, as well as "problem" parents.

- As you prepare, carefully consider how your philosophy for such a presentation can be supplemented by the articles you are about to read and the videos you prepare to view. You may find it helpful to take notes during your preparation to help define five key areas of your philosophy and how they can be used for your parent-coach presentation.

Unit 3 - Physical Fitness and Condition of Athletes

In Assignments 6 - 10 you will be asked to look carefully at various aspects of the physiological dimensions of coaching. As an aid to answering each assignment in meaningful detail, you may find it beneficial to read the assignments before you complete the readings and videos, with an eye toward how each content area specifically relates to your particular area of coaching involvement.

Assignment 6:

You will be asked to define the health- and skill-related components of fitness and relate one component from each category which is especially applicable to your areas of training emphasis.

Assignment 7:

-In this assignment you will be asked to explain and apply the eight principles of training outlined by Richards. You will also be asked to show your calculations as you apply the formulas for establishing maximal and target heart rates for your student-athletes, as well as how you can apply the principle of progression as your training goes from simple to complex.

Assignment 8:

-Here you will be asked to review the principles of resistance training and to develop a ten-item statement outlining your conditioning goals related to your resistance training program. Be sure that you understand the concepts of periodization and age-group considerations, and as you view the video and do the readings, consider how you would apply/ will apply these principles to the age range of players you are preparing.

-You should also consider, as you prepare for your response, the players' parents' need to be involved in and understand your rationale for the goals you outline.

Assignment 9:

-In the ninth assignment you are asked to apply course theory to a case study.

-As you prepare your responses, consider which drills will best address the student-athlete's need to develop agility and speed.

-You may find it helpful to review the principle of progression from the seventh assignment to help you discuss how you would prepare this player to address the above components.

Assignment 10:

-In assignment ten, you will be asked to take a comprehensive look at development of a complete fitness regime.

-You will then be asked to prepare an oral presentation (approximately 300 words) which addresses your players' areas of weakness. As you do the corresponding preparations, work to consider how you would:

-*Diagnose* areas of weakness;

-Set realistic *and measurable* goals;

-Create an organizational plan to work *systematically* to those goals.

Unit 4 - The Psychology of Sport

Assignments 11 - 14 emphasize the psychological dimensions of coaching. As you prepare for each response, consider the mental states of your players which best contribute to their optimal performance. You will be asked to define and apply the concept of arousal, as well as to consider imagery, goal-setting and progressive relaxation as methods of attaining optimal arousal levels among your student-athletes.

Assignment 11:

-As you prepare to complete the eleventh assignment, it may be helpful to take notes on the inverted-U theory and the drive theory, especially as they relate to optimal performance.

Assignment 12:

-You will be asked to define “arousal” as it applies to optimal performance.

-You will also be asked to relate this concept to task complexity, level of skill, trait anxiety, and the levels of players’ physical fitness.

-In your notes, you may wish to prepare by recording the three means of measuring arousal.

Assignment 13:

-This assignment asks you to select one of the arousal control techniques discussed (progressive relaxation, imagery, goal setting), describe that technique and discuss how it helps your player avoid negative levels of arousal.

-As you prepare for these responses, consider how you would apply specific aspects of that technique to address the needs of your own players. Work here to *personalize* this theory to the needs and resources of your particular student-athletes.

Assignment 14:

-Again, you will be asked to *personalize* the content central to this assignment by selecting and applying five practical pointers (twelve were discussed in the video) to consider as you help coach your players in their mental preparation.

-You may find it helpful to work toward considering specific player's needs and to prepare your answer in a manner *individualized* to that player.

Unit 5 - Emerging Issues

In the final unit you will be asked to consider emerging issues in the world of coaching. Here, the presentations are designed to increase your understanding of issues which discuss potential liabilities, as well as remedies suited to the particular policies of your athletic program. Finally you will be introduced by Dean Goplerud to issues related to how a coach can continue his or her professional development to stay current on issues of a reasonable standard of caring for your players.

Assignments 15 & 16:

-You will be asked to cite three specific cases in which there exists potential liability. To prepare for your work here, spend some time reflecting on situations in which outcomes raised specific concerns which could involve corrective action on the part of coaches or the athletic director. You may find it helpful to elicit input from your colleagues here to help you detail such occurrences.

-In Assignment 16 you will be asked to apply the course content of this section to the three situations you outlined above, suggesting ways in which your concerns can best be addressed.

Assignment 17:

-In the final assignment of Theory of Coaching, Dean C. Peter Goplerud, former Dean of Drake University Law School, discusses emerging issues related to our professional development. To best respond to this assignment, it is recommended that you take careful notes on each of his points and summarize, as comprehensively as possible, his closing presentation.

Streaming Videos from Championship Productions

All videos for this course are NOW streamed via Championship Productions. The following link will take you to the streaming video Login Page:

https://www.championshipproductions.com/cgi-bin/champ/member/instant-videos.html

Where it says, "My Email is," please use the email address that corresponds with the semester in which you enrolled:

Your email address is:
draketheory+F@championshipproductions.com
draketheory+SP@championshipproductions.com
draketheory+SU@championshipproductions.com

Your Password is: edma171

Once you have signed in, follow the prompts to see a listing of the videos. Click each video. when you are ready to view it.

Evaluation Criteria

Your coursework will be evaluated based on your responses to the "Assignments" found in each Unit of the Study Guide based on your ability to thoughtfully reflect on the presentations of "The Theory of Coaching," and to apply those concepts to your specific needs and resources. Points are awarded on your ability to:

- **Respond with insight, clarity and precision (cite specific text/video passages)**
- **Respond in relevant illustrative detail (include specific, observable examples)**
- **Write competently at the graduate level (word-processed, proofread document)**

Grading

Grading in the course will be based upon the total points acquired from evaluation instruments used for each unit. There is no final paper.

Grading Scale:	Grade	Points
	A	270 - 300
	B	240 - 269
	C	210 - 239
	D	180 - 209
	F	179 or Less

Completion Procedure

The cover page along with the word-processed responses to the Assignments are the only portions of your coursework that you need to submit to Drake University for evaluation.

You are required to word process your coursework before it is submitted for final grading. The MS Word document "Course Study Guide Answer Pages" is provided for your convenience in word processing. It contains the cover page and the answer pages for the Assignments.

Make sure to keep a copy of the final file submitted as a backup. We are not responsible for materials that do not reach our office.

No printed coursework will be accepted for any reason.
Your coursework must be submitted electronically.

PLEASE PROOFREAD ALL OF YOUR WORD-PROCESSED RESPONSES CAREFULLY BEFORE SUBMITTING!

Please follow the submission process outlined in the "Important Information" found the "Welcome/Confirmation" email you received after you registered.

Course Evaluation

Please complete the online Course Evaluation after you have finished your coursework. The link is at the end of the MS Word document "Course Study Guide Answer Pages." We value your input and will implement your suggestions in future offerings.

If you have any questions, please call our office call 1-800-768-3224

EDMA 171 THEORY OF COACHING

PLEASE use this sheet as a cover page for your completed Study Guide Assignments

Last Name **First Name** **Middle Initial**

Drake ID #

Home Address

City **State** **Zip Code**

Coaching or Teaching Position Held/Grade Level **Years Taught**

Home Telephone **School Telephone**

E-mail address

I am enrolled in: **Fall** **20__**

Spring **20__**

Summer **20__**

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Unit 1

Theory of Coaching & Competition (Sociology)

"It's a little like wrestling a gorilla; you don't quit when you're tired – you quit when the gorilla is tired."

-- Robert Strauss

Theory of Coaching: Competitive Orientations (Sociology)

NOTE: The readings provided in the study guide are classical pieces from the newly emerging discipline of sport sociology. Therefore, even though some of the articles may appear to be outdated, regarding our analysis of sport and coaching they are the information that creates the historical foundation of coaching. Enjoy!

Video Access: See Page xiv for information related to accessing the Unit Video presentations.

Unit 1 Goals:

(Your objectives will be accomplished as you respond to the various assignments.)

After watching Sociology of Coaching, Parts One and Two, and reading the assigned materials, you will recognize that:

- Athletics in the United States has its "positive" and "negative" aspects.
- Coaches in youth sport, interscholastic sport and intercollegiate sport differ in their beliefs about competition.
- Athletes, parents, and community members view the sporting experience from different perspectives.

Overview

Unit 1: Competitive Orientations at the Different Levels of Sport

I. Sport and society

A. Social significance of sports

1. Family and sport
2. Schools and sport
3. Communities and sport

B. Social development of athletes in sport

1. Athletes' expectations
2. Parents' expectations
3. Assistant coaches' expectations
4. Spectators' expectations
5. Head coaches' expectations

II. Sport Socialization

A. Conditions necessary to the development of character in sport
B. Implications of specialization in sport
C. Youth sports
D.
1. Characteristics of informal play
2. Characteristics of organized competitive play
3. Psycho-Social development of youth sport athletes

III. Modifications of organized youth sports

A. Don't coach all the athletes all the time
B. Allow athletes to self-enforce rules
C. Modify the size of the competitive surface
D. Simplify the game plan so that athletes can make decisions

IV. Interscholastic athletes

A. Developmental issues

1. Competence and self-esteem
2. Autonomy
3. Social acceptance
4. Social recognition
5. Sexual identities

B. Advantages of interscholastic sport

1. Participation in adult-accepted activities
2. Alternative environments to demonstrate competence
3. Opportunities to demonstrate skills
4. Establishment of the difference between toughness and meanness
5. Empowerment of young girls to be successful in alternative life aspects
6. Social connections

C. Problems with interscholastic sport

1. Over emphasis on big-time sport models
2. Limited access opportunities
3. Emphasis on conformity and obedience instead of responsibility and autonomy
4. Lack of gender-mixed programs

D. Burnout

1. Psychological implications
2. Implications for adolescent autonomy
3. Prevention of burnout

V. Intercollegiate athletes

A. Most diversified level of sport
B. Division I athletes
C. Division II and Division III athletes
D. Women and intercollegiate athletes
E. Problems in intercollegiate athletes
1. Corporatization of athletic departments
2. Lack of athletes' rights
3. Gender inequities
4. Racial and cultural inequities
5. Policies for allocating revenues

Learning Objectives

1. After viewing the Sociology of Coaching, Parts One and Two, identify three key points of sport in society which have contributed to the positive and negative orientations in youth sport, interscholastic sport and intercollegiate sport.

2. After viewing the video, describe the variables which characterize the different levels of competitive sports' environments.

3. Using the variables which characterize the different levels of a sports' environment, construct a profile of an ideal competitive environment at each of the three levels of competitive sports' environments.

Assignment 1: (30 Points)

(Use the MS Word document "Course Study Guide Answer Pages" provided for your convenience in word processing.)

After watching the video by Jay Coakley, read the following article included in the Study Guide and answer the following questions with as much detail as possible.

- Coakley, Jay. "Sport in the U.S.: An Inspiration or an Opiate?" From Sport in Society: Issues and Controversies, Second edition (St. Louis: C.V. Mosby, 1982), pp. 16-30.

1. The perspective of "sport as an inspiration" views sport as contributing to the functions of society. Using information from Coakley's article and from his video presentation, describe four positive functions that are typically

attributed to sport. Include in your response the social institutions (i.e. family school and community) discussed in the video. Do you support the "sport as an inspiration" position? Explain, using two examples from your experience.

2. According to Coakley's article, what is meant by the statement that "sport is an opiate of the masses"? Using information from the article, develop an argument either for or against this statement. This argument should include at least five key points, each supported by an example from your experience.

Assignment 2: (15 Points)

(Use the MS Word document "Course Study Guide Answer Pages" provided for your convenience in word processing.)

1. Explain the following statement: "The general approach that participants have towards sports is likely to influence the extent to which they will give priority to competitive behavior in sports events." Explain whether or not you support this statement, using examples from the video and/or your own experience.

Assignment 3: Closure (15 Points)

(Use the MS Word document "Course Study Guide Answer Pages" provided for your convenience in word processing.)

1. Talk with a high school principal or athletic director to find out how the expanded knowledge base in physical education, exercise science, and sport management has positively affected school and nonschool athletic programs. Identify the person to whom you talked and summarize his/her response in a short essay (150-200 words).

Unit 1 - Assignment Sheet

Assignment 1: (30 Points)

1. The perspective of "sport as an inspiration" views sport as contributing to the functions of society. Using information from Coakley's article and from his video presentation, describe four positive functions that are typically attributed to sport. Include in your response the social institutions (i.e. family school and community) discussed in the video. Do you support the "sport as an inspiration" position? Explain, using two examples from your experience.

2. According to Coakley's article, what is meant by the statement that "sport is an opiate of the masses"? Using information from the article, develop an argument either for or against this statement. This argument should include at least five key points, each supported by an example from your experience.

Assignment 2: (15 Points)

1. Explain the following statement: "The general approach that participants have towards sports is likely to influence the extent to which they will give priority to competitive behavior in sports events." Explain whether or not you support this statement, using examples from the video and/or your own experience.

Assignment 3: Closure (15 Points)

1. Talk with a high school principal or athletic director to find out how the expanded knowledge base in physical education, exercise science, and sport management has positively affected school and nonschool athletic programs. Identify the person to whom you talked and summarize his/her response in a short essay. (150-200 words)

Suggested Readings:

Boyce, B.A., and King, V. (1993). Goal Setting Strategies for Coaches. Journal of Physical Education, Recreation, and Dance, 64, (1), 65-68.

Brunner, R., and Hill, D. (1992). Using Learning Styles Research in Coaching. Journal of Physical Education, Recreation, and Dance. 63, (4), 26-28, 61.

Coakley, J., and Donnelly, P. eds. (1999). Inside Sports. London: Routledge.

Coakley, J., and Dunning, E. eds. (2000). Handbook of Sports Studies. London: Sage.

DeKnop, P., Skirstad, B., Engstrom, L.-M. Weiss, eds. (1996). Worldwide Trends in Youth Sport. Champaign, IL: Human Kinetics.

Horne, J., Tomlinson, A., and Whannel, G. (1999). Understanding Sport: An Introduction to the Sociological and Cultural Analysis of Sport. London: E & FN Spon.

McClelland, D. (1993). Achievement Motive. New York: Irvington.

Miracle, A.W., and Ree4s, C.R. (1994). Lessons of the Locker Room: The Myth of School Sports. Amherst, NY: Prometheus Books.

National Federation Handbook1999-2000. (1999). Kansas City, MO: National Federation of State High School Associations.

Sabock, R.J. (1991). The Coach (5th ed.). San Diego: Collegiate Press.

Sack, A.L., and Staurowsky, E.J. (1998). College Athletes for Hire: The evolution and legacy of the NCAA's Amateur Myth. Westport, CT: Praeger.

Sage, G.H. (1990). Power and Ideology in American Sport. A Critical Perspective. (2^{nd} ed.). Champaign, IL: Human Kinetics.

Thompson, J. (1993). Positive Coaching. Carmel, IN: Brown & Benchmark.

Zimbalist, A. (1999) Unpaid Professionals: Commercialistm and Conflict in Big-Time College Sports. Princeton, NJ: Princeton University Press.

Coaching Internet Sources:

Boys and Girls Clubs of America
www.bgca.org

International Society for the History of Physical Education and Sport
http://www.ishpes.org/

Iowa Girls' High School Athletic Union
www.ighsau.org

Iowa High School Athletic Association
www.iahsaa.org

Little League Baseball
www.littleleague.org

National Alliance of Youth Sports
www.nays.org

National Collegiate Athletic Association
www.ncaa.org

National Federation of State High School Associations
www.nfhs.org

National Association of Intercollegiate Athletics
naia.cstv.org

Center for the Study of Sport in Society
www.neu.edu/sportinsociety

Australian Sports Commission
www.ausport.gov.au

3. *Sport in Society: An Inspiration or an Opiate?*

JAY J. COAKLEY

People in American society generally see sport in a very positive way. Not only is sport assumed to provide a training ground for the development of desirable character traits and good citizens, but it is also believed to reaffirm a commitment to societal values emphasizing competition, success, and playing by the rules.

Does sport really do all these things? Is it as beneficial and healthy as people believe? These questions have generated considerable disagreement among sport sociologists. It seems that most of us in the sociology of sport are quick to agree that sport is a microcosm of society—that it mirrors the values, structure, and dynamics of the society in which it exists (Eitzen and Sage, 1978). However, we often disagree when it comes to explaining the consequences or the functions of sport in society. This disagreement grows out of the fact that sport sociologists have different theoretical conceptions of how society works. Therefore, they differ on their ideas about how sport functions within society. A description of the two major theoretical approaches used in the sociology of sport will illustrate what I mean.

THE FUNCTIONALIST APPROACH

Sport Is an Inspiration

The majority of sport sociologists assume that society is most accurately conceptualized in terms of a *systems model.* They see society as an organized system of interrelated parts. The system is held together and operates because (1) its individual members generally endorse the same basic values and (2) the major parts in the system (such as the family, education, the economy, government, religion, and sport) all fit together in mutually supportive and constructive ways. In sociology, this theoretical approach is called *functionalism.*

SOURCE: Excerpt from *Sport in Society: Issues and Controversies,* 2nd ed., (St. Louis: C. V. Mosby, 1982), pp. 16-30.

When the functionalists describe and analyze how a society, community, school, or any other system works, they are primarily concerned with how the parts of that system are related to the operation of the system as a whole. For example, if American society is the system being studied, a person using a functionalist approach would be concerned with how the American family, the economy, government, education, religion, and sport are all related to the smooth operation of the society as a whole. The analysis would focus on the ways in which each of these subparts of society help to keep the larger system going.

The functionalists also assume that a social system will continue to operate smoothly only if the four following things happen:

1. The members of the system must learn the values and the norms (i.e., the general rules or guidelines for behavior) that will lead them to want to do what has to be done to keep the system in operation. This process of shaping the feelings, thoughts, and actions of individuals usually creates some frustration and tension. Therefore, there must also be some channels through which people can let off steam in harmless ways.
2. The system must contain a variety of social mechanisms that bring people together and serve as catalysts for building the social relationships needed for coordinated action. Without a certain degree of cohesion, solidarity, and social integration, coordinated action would be impossible and the social system would stop functioning smoothly.
3. The members of the system must have the opportunity to learn what their goals should be within the system and the socially approved ways of achieving those goals.
4. The social system must be able to adjust to the demands and challenges of the external environment. It must have ways of handling and coping with changes in the social and physical environments so that it can continue to operate with a minimal amount of interference and disruption.

According to those using a functionalist approach, these four "system needs" are the basic minimum requirements for the smooth operation of any social system whether it be a society, community, club, large corporation, or neighborhood convenience store (Parsons and Smelser, 1965). These four basic system requirements are referred to as:

1. The need for pattern maintenance and tension management.
2. The need for integration.
3. The need for goal attainment.
4. The need for adaptation.

When you start with a functionalist conception of how society works, the answer to the question of what sport does for a society or community

is likely to emphasize the ways in which sport satisfies the four basic needs of the social system. A brief review of how sport is related to each of these needs is a good way to summarize this approach.

PATTERN MAINTENANCE AND TENSION MANAGEMENT

The functionalists generally conclude that sport provides learning experiences that reinforce and extend the learning occurring in other settings. In other words, sport serves as a backup or a secondary institution for primary social institutions such as the family, school, and church. Through sport people learn the general ways of thinking, feeling, and acting that make them contributing members of society. They become socialized so that they fit into the mainstream of American life and therefore reaffirm the stability and continued operation of our society (Schafer, 1976).[1]

The pattern maintenance function of sport applies to spectators as well as those who are active participants. Sport is structured so that those who watch or play learn the importance of rules, hard work, efficient organization, and a well-defined authority structure. For example, sociologist Gunther Luschen (1967) shows how sport helps to generate the high levels of achievement motivation necessary to sustain the commitment to work required in industrialized countries. Along similar lines, Kleiber and Kelly (1980) have reviewed a number of studies concluding that participation in competitive games helps children learn how to handle adult roles in general and competitive relationships in particular. In fact, some recent discussions of sex roles have suggested that women may be at a disadvantage in business settings partly because they have not been involved in competitive sports to the same degree as their male counterparts (Hennig and Jardim, 1977; Harragan, 1977; Lever, 1978).

Sport has also been thought to serve tension management functions in society by providing both spectators and participants with an outlet for aggressive energy (Vanderzwaag, 1972; Proctor and Eckard, 1976; Marsh, 1978). This idea prompted two widely respected sociologists, Hans Gerth and C. Wright Mills (1954), to suggest the following: "Many mass audience situations, with their 'vicarious' enjoyments, serve psychologically the unintended function of channeling and releasing otherwise unplacable emotions. Thus, great volumes of aggression are 'cathartically' released by crowds of spectators cheering their favorite stars of sport—and jeering the umpire." The idea that sport may serve tension management functions is complex and controversial.

INTEGRATION

A functionalist approach also emphasizes how sport serves to bring people together and provide them with feelings of group unity, a sense of social

identification, and a source of personal identity. In short, a functionalist explains how sport creates and reaffirms the linkages between people so that cooperative action is possible. Luschen (1967) outlines how this occurs in the following: "Since sport is also structured along such societal subsystems as different classes, males, urban areas, schools, and communities, it functions for integration. This is obvious also in spectator sport, where the whole country or community identifies with its representatives in a contest. Thus, sport functions as a means of integration, not only for the actual participants, but also for the represented members of such a system."

Sport has been seen to serve integration functions in countries other than the United States also. For example, others have discussed how sport contributes to unity and solidarity in Switzerland (Albonico, 1967), France (Bouet, 1969), Germany (Brockman, 1969), China (Chu and Segrave, 1979), the Soviet Union (Riordan, 1977), and Brazil (Lever, 1981).

Andrzej Wohl (1970), a sport sociologist from Poland, has argued that competitive sport could not exist if it recognized "local, nation or racial barriers or differences of world outlook." He points out that sport is so widely used to serve integration functions that it "is no secret for anybody any more."

GOAL ATTAINMENT

Someone using a functionalist approach is likely to see sport as legitimizing and reinforcing the primary goals of the system as well as the means to be used to achieve those goals. In the United States, for example, sport is organized so that successful outcomes are heavily emphasized, and success is generally defined in terms of scores and win-loss records. Just as in the rest of society, the proper way to achieve success in sport is through a combination of competition, hard work, planning, and good organization. Therefore, the sport experience not only serves to legitimize the way things are done in other sectors of society but also it prepares people for participation in those sectors.

In other countries, different aspects of the sport experience are emphasized so that it serves as a supportive model for their goal priorities and the proper means to achieve goals. Capitalist countries are more likely to emphasize output and competition in sport while socialist countries will be more likely to emphasize cooperation and the development of a spirit of collectivism (Morton, 1963). Sport seems to be amazingly flexible in this respect; it has been shaped and defined in a variety of ways to serve goal attainment functions in many different social systems. This point has been developed and explained by Edwards (1973): "Most sports have few, if any, intrinsic and invariably social or political qualities . . . and those qualities which such activities do possess are sufficiently 'liquid' to fit comfortably within many diverse and even conflicting value and cultural traditions."

ADAPTATION

In preindustrial societies it is easy to see how sport serves a system's need for adaptation. Since survival in such societies depends on the development and use of physical skills, participation in games and sport activities is directly related to coping with the surrounding environment (Luschen, 1967). Dunlap (1951) makes this case in her study of the Samoans. Additionally, she found that the "factors of physical strength and endurance which were essential for success in their games were also essential for success in their wars."

In industrial societies, it is more difficult to see how sport satisfies the adaptation needs of the social system. However, in two articles on the functions of sport, Wohl (1970, 1979) has suggested that it is in this area that sport makes its most important contributions. He points out that in any society with technologically advanced transportation and communications systems, sport becomes the only sphere of activities in which physical skills are developed and perfected. Through sport it is possible to measure and extend the range of human motor skills and to adapt them to the environments we have created. Without sport it would be difficult to maintain a population's physical well-being at the levels necessary to keep an industrial society operating efficiently. Sport is so crucial in this regard that Wohl (1979) calls for the use of all the sport sciences to plan and control its development. In this way the contributions of sport to satisfying adaptation needs could be maximized.

In concluding our review of the functionalist approach to sport it should be pointed out that social scientists are not the only ones who use such an approach in explaining the relationship between sport and society. Most people view society and the role of sport in terms very similar to those used by the functionalists. They look for the ways in which sport contributes to the communities in which they live. They see sport providing valuable lessons for their children and opportunities for themselves to release the tensions generated by a job or other life events. Sport gives them something to talk about with strangers as well as friends and it provides occasions for outings and get-togethers. Many people believe that sport can serve as a model of the goals we should strive for and the means we should use in trying to achieve those goals. Finally, sport is viewed as a healthy activity for individuals as well as the entire country; it can extend life and keep us physically prepared to defend our country in case of war.

These beliefs about sport have led to policy decisions on Little League programs, the funding of high school and college athletics, the support of professional teams and the Olympic movement, the development of physical education programs in schools, and the use of sport activities in military academies to prepare young men and women to be "combat ready." The widespread acceptance and the pervasive influence

of the functionalist approach make it necessary for us to be aware of its weaknesses.

Limitations of the Functionalist Approach

Using a functionalist approach to answer the question of how sport is related to society can provide us with valuable insights, but it is not without its problems. Such an approach tends to emphasize the positive aspects of sport. This is because those using it often assume that if some part or component of a social system has existed for a long time, it is likely to be contributing to the system in a favorable way; if it were not, it would have been eliminated or gradually faded out of existence on its own. Since sport has been around for some time and is an increasingly significant component of our social system, most functionalists conclude that it *does* make positive contributions to society. This conclusion leads them to ignore or underemphasize the negative aspects of sport. After all, it is also possible that sport could distort values and behavioral guidelines (norms). Sport could destroy motivation, create frustration and tensions, and disrupt social integration. It could impede goal attainment and interfere with methods of coming to terms with the external social and physical environment by diverting a group's attention away from crucial personal and social issues.

Another problem with the functionalist approach is that it is based on the assumption that the needs of the individual parts of a social system overlap with the needs of the system as a whole. The possibility of internal differences or basic conflicts of interests within a social system is inconsistent with the assumption that any system is held together by a combination of common values and an interrelated, mutually supportive set of parts. If the needs of the total system were in serious conflict with the needs of the individual parts, the validity of the functionalist approach would be called into question.

This is one of the major weaknesses of functionalism. Although we may agree that many people in our society hold similar values, can we also argue that the structure of American society serves the needs of everyone equally? It would be naive to assume that it does. In fact, it may even frustrate the needs of certain groups and individuals and generate conflict. To conclude that sport exists because it satisfies the needs of the total system overlooks the possibility that sport may benefit some segments of the population more than others. Furthermore, if the interests of some groups within the system are met at the expense of others, the consequences of sport could be described as positive only if you were viewing them from the perspective of those privileged groups. Unfortunately, a functionalist approach often leads to underemphasizing differences of interests as well as the possibility of exploitation and coercion within the social system. It also leads to ignoring the role of sport in

generating conflict and maintaining a structure in which at least some relationships are based on exploitation and coercion.

In sociology the theoretical approach that calls attention to these unpleasant characteristics of social systems and how sport is related to them is called conflict theory.

CONFLICT THEORY

Sport Is an Opiate

Conflict theory is not as popular as functionalism. It does not fit with what most people think about how society is organized and how it operates. Instead of viewing society as a relatively stable system of interrelated parts held together by common values and consensus, conflict theorists view it as an ever-changing set of relationships characterized by inherent differences of interests and held together by force, coercion, and subtle manipulation. They are concerned with the distribution and use of power rather than with common values and integration. Their analysis of society focuses on processes of change rather than on what is required for a social system to continue operating smoothly.

Most beginning students in the sociology of sport are not very receptive to the use of conflict theory in explaining the relationship between sport and society. They say that it is too negativistic and critical of our way of life and the institution of sport. They prefer the functionalist approach because it fits closely with what they have always believed and because it has implications that do not threaten the structure of either society or sport. My response is that although functionalism is useful, it can often lead us to look at the world unrealistically and ignore a dimension of the relationship between sport and society that should be considered. Neither American society nor sport is without problems. Awareness and understanding of these problems require critical thought, and conflict theory is a valuable stimulus for such thought.

Conflict theory is based primarily on an updated revision of the ideas of Karl Marx. Those who use it generally focus their attention on capitalist countries such as the United States but it has also been used to describe and understand any social system in which individuals are perceived as not having significant control over their own lives. According to many conflict theorists this includes capitalist systems along with fascist or military/police regimes and socialist systems controlled by centralized, bureaucratic governments (Brohm, 1978).

In order to understand how conflict theorists view the role of sport in society, we will start with a simplified description of capitalism and how contemporary organized sport fits into its structure. Any capitalist system requires the development of a highly efficient work process through which

an increasing number of consumer goods can be mass produced. Industrial bureaucracies have been created to meet this need. This means that in the interest of efficiency and financial profit, workers end up performing highly specialized and alienating jobs. These jobs are generally in the production, marketing and sales, or service departments of large organizations where the workers themselves have little control over what they do and experience little or no excitement or satisfaction in their day-to-day work lives. This situation creates a need for escape and for tension-excitement in their nonwork lives. Within capitalist systems, people are subtly manipulated to seek the satisfaction they need through consumerism and mass entertainment spectacles. Sport is such societies has emerged as a major form of entertainment spectacle as well as a primary context for the consumption of material goods. Additionally, the structure of sport is so much like the structure of work organizations and capitalist society as a whole that it serves to stabilize the system and promote the interests of people who are in positions of power.

Conflict theorists see sport as a distorted form of physical exercise that has been shaped by the needs of a capitalist system of production. A specific example of how sport has developed in this manner has been outlined by Goodman (1979) in an analysis of the history of playground and street life in one of New York City's working class neighborhoods. Goodman shows how the spontaneous, free-flowing play activities of children in New York were literally banned from the streets in order to force participation in organized playground programs. The original goals of the playgrounds are best described through the words of one of the influential playground supervisors early in this century (Chase, 1909): "We want a play factory; we want it to run at top speed on schedule time, with the best machinery and skilled operatives. We want to turn out the maximum product of happiness." Thus the organized activities and sport programs became a means for training the children of immigrants to fit into a world of work founded on time schedules, the stopwatch, and production-conscious supervisors.

For the parents of these children the playground and recreation center programs had a different goal. It was clearly explained in the following section of a 1910 New York City Department of Education report (cited in Goodman, 1979): "The great problem confronting the recreation center principal and teachers is the filling of the leisure time of the working men and women with a combination of recreation and athletic activities which will help make their lives more tolerable." As Goodman points out, the purpose of the centers was to provide controlled leisure activities to take the people's minds off the exploitation and poor working conditions experienced in their jobs. The supervised activities were meant to pacify the workers so that they could tolerate those conditions and continue contributing to the growth of the economy.

When they needed to be replaced, the organized playground activities would have prepared their children to take their roles.

Other conflict theorists have not limited their focus to a local community setting. They have talked in more general terms about the relationship between sport and society. Their discussions emphasize four major aspects of the role of sport. These include:

1. How sport generates and intensifies alienation
2. How sport is used by the state and the economically powerful as a tool for coercion and social control
3. How sport promotes commercialism and materialism
4. How sport encourages nationalism, militarism, and sexism

The following sections summarize the discussions of the conflict theorists on each of these four topics.

ALIENATION

According to the conflict theorists sport serves to alienate people from their own bodies. Sport focuses attention on time and output rather than on the individual. Standardized rules and rigid structure destroy the spontaneity, freedom, and inventiveness characteristic in play. Jean-Marie Brohm (1978), a French sport sociologist, explains how sport affects the connection between athletes and their bodies: "[In sport the body is] experienced as an object, an instrument, a technical means to an end, a reified factor of output and productivity, in short, as a machine with the job of producing maximum work and energy." In other words, sport creates a setting in which the body is no longer experienced as a source of self-fulfillment and pleasure in itself. Pleasure and fulfillment depend on *what is done* with the body. Satisfaction is experienced only if the contest is won, if a record is set or a personal goal achieved, and if the body performs the way it has been trained to perform. When this happens sport becomes a "prison of measured time" and alienates athletes from their own bodies (Brohm, 1978).

Mumford (1934) extends the idea of alienation even further. In a classic analysis of contemporary civilization he describes the sport stadium as an "industrial establishment producing running, jumping or football playing machines." Building on this notion conflict theorists argue that commercialized sport (any sport in which profits are sought) reduces athletes to material commodities (Hoch, 1972). Thus the body becomes a tool not only for the setting of records but also for generating financial profits for nonparticipants—from team owners and tournament sponsors to concession operators and parking lot owners. The athletes may also benefit, but their rewards require them to forfeit the control of their bodies and become "gladiators" performing for the benefit of others.

Conflict theorists have pointed to the use of drugs and computer technology in sport as support for their analysis of how sport affects the definition of an athlete's body (Brohm, 1978). When the body is seen as an instrument for setting records and the improvement of times is defined as the measure of human progress, then the use of drugs, even harmful drugs, will be seen as a valuable aid in the quest for achievement. Computer technology used to analyze and improve the body's productive capacity further separates the physical act of sport participation from the subjective experience of the athlete. Just as on the assembly line, efficiency comes to be the major concern in sport and the worker (athlete) loses control over the means of production (the body).

COERCION AND SOCIAL CONTROL

Goodman's (1979) study of the working class neighborhood in New York City led him to conclude that sport in that city was used as a means of making the lives of shop workers more tolerable. Other conflict theorists expand this notion and describe sport as an opiate interfering with an awareness of social problems and subverting collective attempts to solve those problems. According to Hoch (1972), sport perpetuates problems by providing people with either "(1) a temporary high . . . which takes their minds off problem[s] for a while but does nothing to deal with [them]; or (2) a distorted frame of reference or identification which encourages them to look for salvation through patently false channels."

Hoch's description of the personal and social impact of sport is similar to Marx's description of religion in society. To Marx, religion focuses attention on the supernatural, provides people with a psychological lift, and emphasizes improvement through changing the self rather than changing the social order. Religion destroys awareness of material reality and promotes the maintenance of the status quo by giving priority to the goal of spiritual salvation. Marx further concluded that organized religion can be exploited by people in positions of power in society. If the majority of individuals in a society believe that enduring pain, denying pleasure, and accepting their status in this life gains them spiritual salvation, those in power can be reasonably sure that those under their control will be hard working and docile. If those in power go so far as to manifest their own commitment to religion, their hold over the people can be strengthened even further. Such a manifestation would, after all, show that they had something in common with the masses.

Conflict theorists make the case that in an advanced capitalist society where people are not likely to look to the supernatural for answers and explanations, religion may be supplemented by other activities with similar narcotic effects. Hoch points out that these contemporary "opiates" include "sport spectacles, whiskey, and repressively sublimated sex." These combined with other opiates such as nationalism, racism, and

sexism distort people's perspectives and encourage self-defeating behavior. Among these, sport stands out as an especially powerful opiate. Unlike the others, sport spectatorship is often accompanied by an extremely intense identification with players, teams, and the values perceived to be the basis for success in athletics. According to Hoch, this identification brings sport further into the lives of the spectators and captures their attention on a long-term basis. When the game ends, fan involvement does not cease, but carries on between games and into the off season. This means that workers think about and discuss the fate of their teams rather than the futility of their own lives. Thus they are less likely to become actively involved in political or revolutionary organizations. Petryszak (1978), in a historical analysis of sport, makes the case that the "ultimate consequence of . . . spectator sports in society is the reduction of the population to a position of complete passivity."

Beyond occupying people's time and distracting their attention and energy, sport helps maintain the position of those in power in other ways. Conflict theorists note that the major contact sports, such as football, hockey, and boxing, promote a justification for the use of "official" violence by those in authority positions. In other words, sport shapes our values in ways that lock us into a social system based on coercion and the exploitive use of power. The more we witness violent sports, the more we are apt to condone the use of official violence in other settings—even when it is directed against us.

Sport also serves the interests of those in power by generating the belief that success can be achieved only through hard work and that hard work always leads to success. Such a belief encourages people to look up to those who are successful as being paragons of virtue and to look down of the failures as being lazy and no good. For example, when teams win consistently their success is attributed to hard work and discipline; when they lose consistently, losing often is blamed on a lack of hustle and poor attitude. Losses lead the fans to call for new players and coaches—not a restructuring of the game or its rules. Hoch (1972) points out that this way of looking at things blinds people to a consideration of the problems inherent in the social and economic structure and engenders the notion that success depends only on attitude and personal effort. It also leads to the belief that failure is to be blamed on the individual alone and is to be accepted as an indication of personal inadequacies and of a need to work harder in the future.

Conflict theorists see sport as a tool for controlling people and maintaining the status quo. It is structured to promote specific political ideas (Helmes, 1978) and to regiment and organize the lives of young people so that they will become productive workers. For adults, the role of spectator reinforces a passive orientation toward life so that they will remain observers rather than the shapers of their own experience (Aronowitz, 1973).

COMMERCIALISM AND MATERIALISM

The conflict theorists emphasize that sport is promoted as a product to be consumed and that it creates a basis for capitalist expansion. For example, increasing numbers of individuals and families are joining athletic clubs where they pay to participate and pay for the lessons teaching them how to participate correctly and efficiently. Creating and satisfying these expanding interests have given rise to an entire new industry. Summer sport resorts, winter sport resorts, and local athletic clubs are all part of this profit-generating industry.

Furthermore, sporting goods manufacturers have found that effective advertising can lead more and more equipment to be defined as absolutely necessary for successful and healthy involvement. Potential consumers have been convinced that if they want to impress other people with their knowledge about the sport experience they have to buy and show off only top-of-the-line equipment. It has come to the point where participants can prove themselves in sport through their ability to consume as well as their ability to master physical skills. Thus sport has been used to lead people to deal with one another in terms of material images rather than in terms of the human quality of experience.

Sport not only creates direct profits but also is used as an advertising medium (Brohm, 1978). Sport spectacles serve as important settings for selling cars, tires, beer, soft drinks, and insurance. The tendency for people to personally identify with athletes is also used to sell other products. The role of athlete, unlike most adult occupational roles, is highly visible, prestigious, and relatively easy to emulate. Therefore, the attachment to sport heroes serves as the basis for the creation of an interest in sport along with a general "need" for consumer goods.

This process affects young people as well as adults. Children are lured into the spectator role and the role of consumer by trading cards, Dallas Cowboy pajamas, Yankee baseball caps, NBA basketball shoes, and a multitude of other products that ultimately create adulthood desires to become season ticket purchasers. Participation in highly specialized sport programs leads children to conclude that the proper equipment is always necessary for a good time and that being a good runner, tennis player, and soccer player depends on owning three different pairs of the best shoes on the market.

NATIONALISM, MILITARISM, AND SEXISM

Conflict theorists point out that sport is used by most countries as the showplace for displaying their national symbols and military strength. In many developing countries, national sport programs are administered by the defense department; in industrialized countries sport is symbolically linked with warfare and strong militaristic orientations. The conflict

theorists claim that the collective excitement generated by sport participation and mass spectator events can be converted into unquestioning allegiance to political beliefs and an irrational willingness to defend those beliefs. Nationalistic feelings are fed by an emphasis on demonstrating superiority over other countries and other political systems. Furthermore, sport provides a model of confrontation, which polarizes groups of people and stresses the necessity of being militarily prepared.

Finally, the conflict theorists argue that sport divides the sexes and perpetuates distorted definitions of masculinity and femininity. The organization of contemporary sport not only relegates women to a secondary, supportive role, but also leads people to define masculinity in terms of physical strength and emotional insensitivity. In fact, the model of the successful male is epitomized by the brute strength and the controlled emotions of the athlete. Sport further reinforces sexism by focusing attention on performance differences in selected physical activities. People then use those differences to argue that male superiority is grounded in nature and that the sexes should continue to be separated. This separation obscures the characteristics men and women have in common and locks members of both sexes into restrictive roles.

Conflict theorists see much of contemporary sport as a source of alienation and a tool of exploitation and control serving the needs of economic and political systems rather than the needs of human beings. They generally argue that it is impossible for sport to provide humanizing experiences when the society in which it exists is not humane and creative (Hoch, 1972).

Limitations of the Conflict Theory Approach

Like the functionalist approach, conflict theory has some weaknesses. The conflict theorists make good use of history but they tend to overemphasize the role of capitalism in shaping all aspects of social reality since the Industrial Revolution. Capitalism has been a significant force, but other factors must be taken into account in explaining what has happened during the last two centuries.

The emergence and growth of modern sport is a good case in point. Sport has been strongly influenced by capitalism but the emergence of contemporary sport can be explained in terms of factors that existed prior to the Industrial Revolution. Guttmann (1978) has argued that modern sport is a product of a scientific approach to the world rather than of the needs of capitalist economic systems. This scientific approach to the world grew out of seventeenth-century discoveries in mathematics and is characterized by a commitment to quantification, measurement, and experimentation. According to Guttmann this scientific world-view has given rise to contemporary sport. This is the reason why sport is also

popular in noncapitalist countries including China, Cuba, Czechoslovakia, and the Soviet Union.

In their analysis of sport, many conflict theorists are too quick to conclude that sport inevitably creates alienation and serves as an "opiate of the masses." They tend to ignore the testimonials of athletes who claim that sport participation, even in a capitalist society, can be a personally creative, expressive, and liberating experience (Slusher, 1967; Spino, 1971; Bannister, 1973; Csikszentmihalyi, 1975; Sadler, 1977). This possibility, of course, is inconsistent with the idea that the athlete's body automatically becomes a tool of production controlled and used for the sake of political and economic goals.

The argument that sport is an opiate also has some weaknesses. It is probably true that athletes and fans are more likely than other people to have attitudes supportive of the status quo. However, it is not known if their involvement is sport caused these attitudes or if the attitudes existed prior to their involvement and caused them to be attracted to sport. It may be that sport attracts people who are already committed to the status quo. If this is the case, it is difficult to argue that sport provides an escape from reality for those who might otherwise be critical of the social order. Research suggests that the most alienated and the most dissatisfied people in society are the least likely to show an interest in sport. In fact, interest and involvement are greatest among those who are the most economically successful (Sillitoe, 1969; Edwards, 1973a; Anderson and Stone, 1979).

Another weakness of conflict theory is that it often overemphasizes the extent to which sport is controlled by those in positions of power in society. The people who control the media, sport facilities, and sport teams do have much to say about the conditions under which top level sport events are experienced and viewed by players and spectators alike. However, it is difficult to argue that all sport involvement is a result of the promotional efforts of capitalists or government bureaucrats. This is especially true when attention is shifted from professional level sport to sport at the local recreational level. Active sport participation generally occurs at levels where the interests of the participants themselves can be used as the basis for creating and developing programs.

Furthermore, certain sports have characteristics making them difficult to control by those who are not participants. Surfing is a good case in point; it does not lend itself to scheduling or television coverage, equipment needs are not extensive, and it does not generate much long-term spectator interest among those who have never been surfers. Therefore, the development of surfing and other similar sports has not been subject to heavy influence from outsiders whose main concerns are generating profits and creating sport spectacles.

SUMMARY AND CONCLUSION: WHO IS RIGHT?

Now that we have looked at the relationship between sport and society (see Table 3-1 on page 42 for a review) from two different perspectives, which explanation is most correct? Is sport an inspiration or an opiate? I have found that the way people answer this question depends on what they think about the society in which sport exists. For example, those who are generally uncritical of American society will tend to agree with the functionalist approach when they look at sport in the United States. Those who are critical of American society will side with the conflict theorists. However, when the country in question is East Germany or China rather than the United States, some people may shift perspective. Those who do not agree with the way of life in East Germany or China will quickly become conflict theorists in their discussions of sport in these countries; those supportive of socialist systems will tend to become functionalists. It can be confusing to say that sport is an inspiration in one country and an opiate in another.

In order to eliminate some of the confusion on this issue we need detailed research on how the structure of physical activities is related to the subjective experiences of participants (players and spectators). We also need to know how those experiences are related to attitudes and behavior patterns. We can assume that under certain circumstances the consequences of sport will be constructive, and under other circumstances they will be destructive. Our task is to be able to clearly describe the circumstances under which these different consequences occur and to explain why they occur the way they do. This means that studies cannot be limited to specific countries or to specific groups of people. We need cross-cultural and comparative research focusing on all dimensions of the phenomenon of sport.

In developing research and exploring these issues we need to be aware of the ideas of both the functionalists and the conflict theorists. Each of their explanations of the relationship between sport and society alerts us to questions that must be asked and hypotheses that must be tested. Unless these and other theoretical perspectives are used our understanding of sport will be needlessly restricted.

Unfortunately, research will never be able to show us what the relationship between sport and society *should* be. It only alerts us to the possibilities and provides us with a starting point for shaping what it will be in the future.

NOTE

1. Although the focus in this [selection] is the United States, the pattern maintenance function of sport has been described in other countries, including the Soviet Union (Morton, 1963; Riordan, 1977), East Germany (Santomier and Ewees, 1979), China (Johnson, 1973a,b; Chu and Segrave, 1979), Finland (Olin, 1979), Australia (Murray, 1976), and Samoa (Dunlap, 1951).

TABLE 3-1 Functionalism and Conflict Theory: A Summary of Their Assumptions about the Social Order and Their Explanations of the Relationship between Sport and Society

Functionalist Approach	*Conflict Theory*
Assumptions about the social order	
Social order based on consensus, common values, and interrelated subsystems	Social order based on coercion, exploitation, and subtle manipulation of individuals
Major concerns in the study of society	
What are the essential parts in structure of social system?	How is power distributed and used in society?
How do social systems continue to operate smoothly?	How do societies change and what can be done to promote change?
Major concerns in the study of sport	
How does sport contribute to basic social system needs such as pattern maintenance and tension management, integration, goal attainment, and adaptation?	How does sport create personal alienation?
	How is sport used to control thoughts and behavior of people, and maintain economic and political systems serving interests of those in power?
Major conclusions about the sport-society relationship	
Sport is valuable secondary social institution benefiting society as well as individual members of society	Sport is distorted form of physical exercise shaped by needs of autocratic or production-conscious societies
Sport is basically a *source of inspiration* on personal and social level	Sport lacks creative and expressive elements of play; *it is an opiate*
Goals of sport sociology	
To discover ways in which sport's contribution to stability and maintenance of social order can be maximized at all levels	To promote development of humane and creative social order so that sport can be source of expression, creative experiences, and physical well-being
Major weaknesses	
Assumes that existence and popularity of sport prove that it is serving positive functions	Assumes that structures and consequences of sport are totally determined by needs of political and economic order
Ignores possibility of internal differences and basic conflicts of interest within social systems and therefore assumes that sport serves needs of all system parts and individuals equally	Ignores factors other than capitalism in analyzing emergence and development of contemporary sport
	Focuses too much attention on top-level spectator sport and overemphasizes extent to which all sport involvement is controlled and structured by power elite

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Unit 2

Theory of Coaching: Professional & Personal Coaching Roles

"The only place where success comes before work is in the dictionary."

-- Vidal Sassoon

Theory of Coaching: Professional & Personal Coaching Roles

Unit 2 Goals:

(Your objectives will be accomplished as you respond to the various assignments.)

After watching Roles of a Coach, Parts One and Two, and reading the assigned materials, you will have recognized that:

- It is essential that a coach understand his/her responsibilities within the various levels of the athletic competitive arena.
- Every coach must identify and compare the personal and professional "roles" of coaching.
- Identifying and clarifying coaching roles and behaviors is necessary for a sound coaching philosophy.
- A coach's philosophy will play a major role in determining his/her "style" of coaching.

Overview

Unit 2: Professional & Personal Coaching Roles

I. Nature of professional and personal coaching roles

II. Personal roles of a coach

A. Leader
B. Follower
C. Role model
D. Disciplinarian
E. Friend and counselor
F. Life management advisor
G. Parent substitute
H. Family member
I. Single person

III. Professional roles of a coach

A. Administrator
B. Personnel manager
C. Teacher
D. Prudent person
E. Public relations and fund raising
F. Strategist and tactician

IV. Realistic expectations

A. Parents and coaching
B. Coaching and burnout
C. Role conflict

V. Conclusion - bill of rights of young athletes

Learning Objectives

(Your objectives will be accomplished as you respond to the various assignments.)

1. After viewing Roles of a Coach, Parts One and Two, list and explain the professional and personal roles of coaches. Explain how these roles impact your coaching philosophy.

2. After viewing the video and reading the related articles, write a letter to the parents of your team outlining team members' rights and responsibilities. Be sure to make your letter appropriate to their competitive level.

3. After viewing the video and reading the related articles, develop your philosophy of coaching regarding the different competitive levels of sport. What can parents expect you to be and not to be in the sporting environment? What can your family expect you to be?

Assignment 4: (30 Points)

(Use the MS Word document "Course Study Guide Answer Pages" provided for your convenience in word processing.)

Read the following articles included in the Study Guide and then answer the questions that follow.

- Sabcock, Ralph J. "The Roles of A Head Coach", Coaching: A Realistic Perspective, Fifth edition, (San Diego, California: Collegiate Press, 1995), pp.111-130.

- King, Valerie. "Actions Speak Louder Than Words." From Strategies (September, 1992) pp. 17-19.

- Figone, Albert J. "Teacher-Coach Role Conflict: Its Impact on Students and Student-Athletes." From Physical Educator (Late Winter, 1994), pp. 29-35.

- Kosa, Boonsong, "Teacher-Coach Burnout and Coping Strategies." From Physical Educator (Fall, 1990), pp. 153-158.

- Judd, Michael R., Donna L. Pastore, and Betty Kelly, "Reduce and Prevent Coaching Burnout." From Strategies (Vol 6, No 6, 1993), 15-17.

1. After watching the video and reading the related articles, write your philosophy of coaching, naming and describing at least five personal and five professional roles you believe are important to exhibit to be a successful coach.

2. After viewing the video and reading the articles, complete Valerie King's Ethical Behavior Scale for yourself and for a coach you know personally. What did you discover? Write a 300 word response on your findings utilizing your philosophy of coaching and utilizing the questions King presents on the last page of her article.

3. After viewing the video and reading the articles, describe in a 500 word essay how the notion of multiple roles of a teacher/coach contributes to coaching burnout. Which of the six concerns described by Albert Figone do you believe is most relevant? Why? Which of the strategies recommended by Judd, Pastore, and Kelley would you recommend to a coach burned-out coach?

Assignment 5: (30 Points)

(Use the MS Word document "Course Study Guide Answer Pages" provided for your convenience in word processing.)

Read the following articles included in the Study Guide and answer the following questions with as much detail as possible.

- Walker, Hal, J. "Youth Sports: Parental Concerns." From Physical Educator (Spring, 1993), pp. 104-111.

- Stewart, C. Craig. "Parents and Coaches: Expectations, Attitudes and Communication." From Physical Educator (Fall, 1994), pp. 130-137.

- Stewart, C. Craig. "The Coach-Parent Meeting." From Strategies (Vol 10, No. 2, 1996) pp. 13-15.

- Steward, C. Craig. "Coaching Behaviors: 'The Way You Were, or the Way You Wish You Were.'" From Physical Educator (Winter, 1993), pp. 23-30.

1. After viewing the video and reading the articles, create the outline for an oral presentation on the "Parent-Coach Relationship in Sport." Include in this outline each of the following topics: 1) the need for coaches to develop a strategy when dealing with parents, 2) strategies for dealing with problem parents, 3) techniques coaches can utilize to withstand the pressure created by problem parents, and 4) five key elements of your philosophy on how to deal with parents of all your athletes.

UNIT 2 - Assignment Sheet

Assignment 4: (30 Points)

1. After watching the video and reading the related articles, write your philosophy of coaching, naming and describing at least five personal and five professional roles you believe are important to exhibit to be a successful coach.

Assignment 4 (continued)

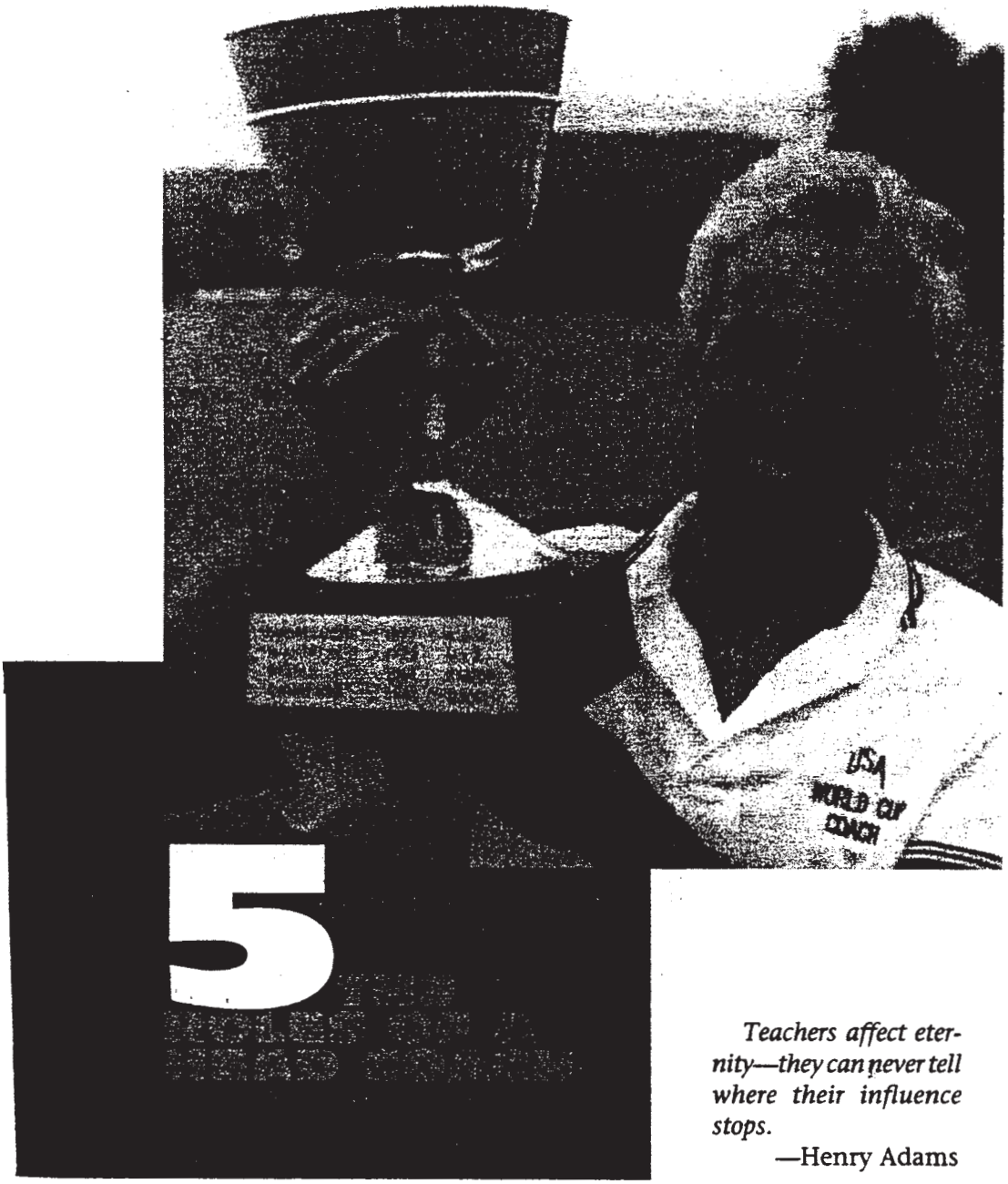
2. After watching the video and reading the articles, complete Valerie King's Ethical Behavior Scale for yourself and for a coach you know personally. What did you discover? Write a 300 word response on your findings utilizing your philosophy of coaching and utilizing the questions King presents on the last page of her article.

Assignment 4 (continued)

3. After viewing the video and reading the articles, describe in a 500 word essay how the notion of multiple roles of teacher/coach contributes to coaching burnout. Which of the six concerns described by Albert Figone do you believe is most relevant? Why? Which of the strategies recommended by Judd, Pastore, and Kelley would you recommend to a burned-out coach?

Assignment 5: (30 Points)

1. After viewing the video and reading the articles, create the outline for an oral presentation of the “Parent-Coach Relationship in Sport.” Include in this outline each of the following topics: 1) the need for coaches to develop a strategy when dealing with parents; 2) strategies for dealing with problem parents; 3) techniques coaches can utilize to withstand the pressure created by these parents; and 4) five key elements of your philosophy on how to deal with parents of all your athletes.



5

Teachers affect eternity—they can never tell where their influence stops.

—Henry Adams

There is a natural tendency for you to assume that, as a coach, most of your time and effort during a sport season will be spent in actually coaching a team. Consequently, you probably concentrate on learning the mechanics of the game. After all, that's what coaching is all about, isn't it?

In actuality, nothing could be further from the truth. If coaching were merely a matter of teaching youngsters the fundamentals of a particular sport, the job would be relatively simple. But this is a unique occupation that will make many demands on you above and beyond teaching players physical skills. Consequently, there are many roles you as a head coach will be called upon to fulfill. The

degree of involvement in the numerous roles varies with coaches, the sport, the number of athletes involved, circumstances, and the basic philosophy of the head coaches.

Some of these roles are filled constantly, with little or no awareness on the coach's part. Others include tasks that need to be dealt with only periodically. Sometimes, depending on the circumstances (possibly unpleasant ones), filling just one of the many roles might demand an excessive amount of time.

The point is that when you become a head coach you will be required by the position to fill many different roles in carrying out your responsibilities, whether you want to or not. These roles are inescapable and, therefore, cannot be delegated or ignored. Keep in mind the head coach is always accountable for whatever occurs on a team. Some veteran coaches have stated publicly that these kinds of expectations often take more time than coaching the team and can take some of the pleasure away from coaching.

This chapter is intended to alert you to some of these roles and your part in them.

TEACHER

Those who want to leave an impression for one year should plant corn.
Those who want to leave an impression for ten years should plant a tree.
Those who want to leave an impression for 100 years should educate a human being.
—*Ancient Chinese Proverb*

First and foremost, a coach must be a good teacher, in every sense of the word. Just as there are teachers of math, art, language, shop, and music, there are teachers of athletics. The late Bart Giamatti, president of Yale and commissioner of baseball, emphasized the point that coaches are just teachers with a different sort of classroom. But everyone does not view coaches this way.

As mentioned previously, prospective coaches frequently hear comments during an interview to the effect that a school hires teachers first and coaches second. You should consider the implications in this statement carefully in order to develop a response that will help school administrators understand how you see your role as an effective teacher in their school system.

> I don't think there is much difference between a teacher and a coach. They have to prepare people; urge and motivate them. They have to teach skill and knowledge involved and then test them. Teachers have a great deal of influence on people in what they say, the way they act, the way they present their material and the role model they present. They must be themselves, must have

values, must incite and be honest. They have to get people to want to do things and yet understand that each is an individual. They have to respect their individuality and respect what they want to get out of a course or athletics.

—Joe Paterno

As a teacher of athletics, you must, of course, be completely knowledgeable about the sport you are to coach. Youngsters are alert and perceptive; if you don't know what you are doing, you won't fool them for long. Then your credibility will be gone, along with their confidence in you. The best way to learn a sport and prepare yourself to become a coach is to participate in the sport you intend to coach. Certainly there are exceptions, but as a general rule this is true. Unfortunately, sometimes public school administrators will, out of desperation, assign someone who has had little or no background in a certain sport to coach its team. This not only puts the coach in an extremely difficult spot but is also unfair to the members of the team. Consequently, head coaches and athletic directors should make every effort possible to prevent this sort of assignment.

The next steps in developing your understanding, knowledge, and competence are actual coaching experience, study, and attending clinics. Classes are important, but there is no substitute for experience. You can gain experience through attending various practice sessions on campus, coaching intramural teams, serving as a part-time coach in the local schools or community, and volunteering your services at your home high school during vacations. Another extremely good opportunity is to get involved in coaching while student teaching—whether or not it is required.

There are two general ways in which you will affect the way your athletes learn: through indirect and direct teaching. Indirect teaching involves nonverbal communication. Direct teaching is largely verbal.

Indirect Teaching

Nonverbal teaching can be further broken down into two elements: image and example. Image can be explained with the old adage: "Coach, what you are speaks so loudly that I cannot hear what you are saying." Sooner or later, every teacher creates an image in the eyes of students. In athletics, especially, it may be that the most important lessons and the ones most readily absorbed by students will be taught by the image you present. Usually students' image of a teacher is formed during the initial meeting and is affected by your appearance and how you walk, stand, or talk, to mention just a few elements. Whether the athletes' impressions of you ever change depends on how they observe you over time. You

hope that whatever image they perceive is accurate and one you would like them to have of you.

Frequently, beginning coaches are not aware of the importance of their image. So the image they project develops without design. Sometimes it is a real shock when coaches discover how the athletes, student body, parents, and other adults in the community see them. You will definitely be the center of attention, and very little of what you do or the way in which you do it will go unnoticed. This attention focuses on behavior in school, during practice, during a game, and in everyday life in the community. Like it or not, the attention goes with the territory.

I'd rather see a lesson
Than to hear one any day,
I'd rather you'd walk with me
Than to merely show the way.
The eye's a better teacher
And more willing than the ear,
And counsel is confusing
But examples always clear.
The best of all the teachers
Are the ones who live the creed.
To see good put in action
Is what everybody needs.
I soon can learn to do it
If you let me see it done.
I can see your hand in action
But your tongue too fast may run.
And the counsel you are giving
May be very fine and true,
But I'd rather get my lesson
By observing what you do!
—Author Unknown

It is a matter of fact that even when nothing is being said between teacher and student, another kind of communication is taking place. Your facial expressions, gestures, or body movement—showing anger, frustration, acceptance, empathy, disapproval, or pleasure—can and do affect members of a team or students in a classroom. Youngsters learn at an early age to interpret this type of communication.

Many things are spoken which are not heard.
Many things are heard which are not said.

Pupils assume that nonverbal cues are more revealing of your actual feelings and thoughts than words are. So when a contradiction arises between your verbal and nonverbal behavior, students will assume that the nonverbal message is more valid. What you say makes little difference if students perceive a different message from your facial expression, tone of voice, or gestures. Body language is an important factor in communication, and if you are not aware of

what your posture and gestures say, you could be sending messages that you have no conscious intention of sending.

You tell on yourself by the friends you seek
By the very manner in which you speak
By the way you employ your leisure time
By the way you make of dollar and dime.
You tell what you are by the things you wear
By the spirit in which your burdens bear
By the kind of things at which you laugh
By the records you play on your phonograph.
You tell what you are by the way you walk
By the things of which you delight to talk
By the manner in which you bear defeat
By so simple a thing as how you eat.
By the books you choose from a well filled shelf
In these ways and more you tell on yourself.
So there is really no particle of sense
In an effort to keep up false pretense
You tell on yourself.

—Author Unknown

The significant difference between image and example is that although the image you project normally occurs by chance, the example you set should be planned and deliberately based on how you want the athletes to see you. This means that the first thing you have to do as coach is take a good look in the mirror and decide in your mind exactly what kind of example you want to set for your athletes. You should then live that example every day.

In learning to be civilized human beings, the process of identification and modeling is of tremendous importance, with parents the foremost, but by no means the only models. School age brings teachers as secondary sources of modeling . . .

—Sherwyn Woods, in Quest

Business managers responding to a survey reported that athletic coaches, in particular high school football coaches, were important influences on their lives. They were seen as models and teachers of fairness and sportsmanship. They were also remembered for the values and skills demanded by team membership with which they imbued their students.

—*Toffler, Barbara Ley,* Tough Choices, Managers Talk Ethics, John Wiley & Sons, N.Y., 1986.

The process of identification and modeling are of some concern to women in athletics when they note the relatively large number of men coaching women's teams; they are concerned with role modeling for these young women, or its absence if the coach is a man. If you accept the fact that teaching by example is legitimate and that role modeling is a large part of the process, you will agree that women should be coaching women. This call for female coaches has nothing to do with the technical aspects of coaching but concerns the infinite lessons athletes can learn from the example of their coaches. Although there are similarities in what is being taught by male and female coaches, it is highly unlikely that female coaches would want or attempt to set the same example for girls and young women that male coaches set for boys and young men.

One of the things you must guard against is acting in a way that makes you appear to be hypocritical in the eyes of the athletes. An example would be stressing the importance of following rules and then going to great lengths to show the team how to take advantage of them. This lesson can also be taught by coaches who study the rules carefully to see how far they can bend them—to their advantage of course—and then justify this by claiming that it is good strategy. Whether this is in the spirit of the game or not makes no difference to such coaches.

Then there are the coaches who smoke in front of athletes while telling them that they shouldn't smoke because it is harmful to their health. Or coaches who tell a team that they drink but that the athletes shouldn't; because the coach is an adult, drinking is OK. The tradition of an adult (coach) telling youngsters to "do what I say, not what I do" is hypocrisy at its worst, and this kind of example surely has an adverse effect on the respect and admiration athletes and many parents develop for coaches.

No written work or verbal plea can teach young hearts what they should be—not all the books on all the shelves, but what the teachers are themselves.

—*Author Unknown*

Direct Teaching

The second way that students will learn from you is through direct teaching: lecture, explanation, and demonstration. A com-

mon mistake among inexperienced teachers is to assume that this method of teaching is not only the best way but also the only way to teach. This is not always true. Not only is this technique the most widely used, but it is probably the most abused, in that teachers frequently talk too much and become uncomfortable if something isn't being said at all times while they are in front of a group. We cannot underplay the importance of verbal communication in coaching, but it can lose its effectiveness when used unnecessarily, especially during a practice session. In other words, say a little and have the players do a lot, and be careful not to cause "paralysis by analysis."

Unfortunately, verbal communication suffers tremendous abuse in our society. Many people have trouble in getting to the point when they speak. Many have a hard time putting their thoughts into words so that everyone clearly understands what they are trying to say. There is also a tendency to saturate speech with words that are difficult to understand in order to impress listeners. Normally this only results in confusion or misunderstanding.

> I know you believe you understand what you think I said, but I am not sure you realize that what you heard is not what I meant.
> —*Author Unknown*

DISCIPLINARIAN

Without discipline there can be no teaching or learning. Unfortunately, most people associate punishment with the word discipline. This is not the meaning of the term in the context of teaching

and learning a sport. Included in its application here is the ability to convince youngsters of the value of precise attention to detail, dependability, and punctuality; the standards of personal conduct in practice, during the game, and in school; and, of course, the reasons for following rules. In the history of sport, no team has ever been consistently successful over a period of years without a high degree of discipline. This is an "absolute." It is interesting to note that the winningest coaches are always among the strictest disciplinarians in coaching. If you are going to be in charge, then be in charge.

No person has ever been hurt by growing up with discipline used wisely and fairly, but many young people have suffered because of a lack of discipline. To discipline youngsters is to love them. Today, this role of a coach is more difficult than ever, since the fashionable attitude is for everyone to be able to do their own thing. Added to what some people describe as the "me generation" is the concern for interfering with personal rights. People ask, "Do coaches have the right to discipline athletes?" In the minds of some people in today's society, the answer is not so clear. But make no mistake about it, much of what you do with a team ties in with discipline and the need to run an orderly program. You must be "king of the hill" but temper your demands with understanding and good judgment.

The way in which you establish discipline depends on many things, but primarily it depends on your personality and the situation in which you work. It depends partly, too, on the image you create in the eyes of the members of a team. In most communities, parents expect teachers to enforce certain measures of discipline, since most adults recognize the benefit for their children. Sometimes parents will come to you and ask for help in instilling some discipline in a son or daughter because they haven't been able to do the job, and they need help. Even though youngsters themselves won't admit it, they want and need an authority figure, and if you don't provide this for athletes, it may be that they will feel cheated and lose respect for you.

SALESPERSON

This role is important to you because the attitude of modern-day high school students toward athletics seems to have changed. In many communities (not all) there are just too many things competing for a youngster's attention, too many boys and girls who own automobiles and motorcycles, too many young people with a pocket full of money and with too many places to go for you to assume that they will come in droves to try out for a team. Participation in sport might not be that important to them. You have to sell the program to students in such a way that they aspire to become a part of the team. You must sell to the parents to help them understand all the purposes of the program and to get their support. And finally you must be a sales agent to the whole community to create a better understanding of the role of athletics in a high school.

This aspect of coaching is also important when you take a job that has just been vacated. Initially, everything you do and say will be compared to the ways of the previous coach. So it is important that you sell your ideas and goals to those concerned as quickly as possible to obtain needed cooperation before too much valuable time passes.

This role can be a difficult one to fill for coaches of teams that don't have great crowd appeal or the attention of the community; a lot of people just don't care about the "other" sports. This means that some coaches have to work harder than others at being salespeople.

PUBLIC RELATIONS EXPERT

Since you are or will be in the public eye more than most faculty members, you have a great opportunity for public relations, both in and out of the community. If you are interested in all phases of the school community, you can provide good public relations not only for the athletic program but for other school programs as well. An open house for parents or members of a team, or a meet-the-team night for everyone in the community greatly enhances public relations for the school and athletic department. Your ability to interact well with the public will be tested periodically when some adults in the community become vocal in their criticism of you, the team, or individuals on the team.

The demands of this role are in direct proportion to the visibility of the sport you coach, which varies somewhat from community to community. Obviously, if your team competed in front of ten thousand spectators regularly and my team drew crowds of about one hundred per event, your concern with this role might be greater than mine.

Regardless of the visibility factor, every coach will find the time spent in public relations to be worthwhile, especially for the athletes who see themselves as unappreciated in a school athletic program—and their parents. This will require a lot of initiative on your part, just like everything else in coaching.

Good public relations also develop when you take time to participate in community functions that might or might not be school related. Every coach, by nature of the position, is naturally a full-time public relations person for the school, seven days a week, twelve months a year. If this bothers you, remember that it goes with the territory.

GUIDANCE COUNSELOR

It will not be at all uncommon for youngsters to come to you seeking advice or guidance for a problem or concern. Often athletes are faced with a problem they feel they cannot discuss with their parents or the guidance counselor in the school, and because of the special rapport that develops between coaches and athletes, they turn to you, the coach. This can occur during a school day or at almost any other time, and it is not unusual for athletes to call or come to your home late at night when they feel they need help.

One of the principles of guidance to be remembered is to let the student seeking guidance do most of the talking. You should try to help the student see both sides of the problem and to recognize all the possible solutions or courses of action. The student then decides what needs to be done. In guidance, the teacher gives help and advice but should not tell the youngster what to do.

Another consideration is that of privileged communication. You might be told something in strictest confidence, because a boy or girl has faith and trust in you and doesn't know who else to turn to. Just be careful not to get yourself boxed into a corner by promising a youngster that you won't tell anyone what he or she is about to say to you. Your ego might be stroked because you are the one person they feel they can confide in, but beware. Getting caught between a troubled student and a set of parents is a no-win situation for you.

Sometimes a student doesn't really need advice but simply someone who will listen. In spite of the busy schedule coaches live each day, no youngster should be turned away in this situation. In all of an athlete's career, this particular moment could be one of the most important to a troubled boy or girl, and you should never underestimate the importance of your role. Students never interrupt a teacher's work—they are our reason for existing. Remember this.

DIPLOMAT

Coaches must be diplomatic in their relations with parents and others in the community. It is inevitable that spectators will ques-

tion tactics, the use of personnel, and the performance of the team. Sometimes questions are raised in a highly antagonistic way. For example, you might walk into a local shop and before the door is closed hear someone say in a loud, belligerent voice, "Why did so-and-so play in the last game? The kid is lousy." Your first reaction will probably be one of instant fury; on second thought you might consider that there may be a better way to combat ignorance than with a sledgehammer. The reasoned approach is not always possible and it is rarely easy, but it is possible to answer such critics positively and still maintain a certain degree of dignity. Don't get down in the gutter with a nasty critic.

Sometimes it is much more difficult to be diplomatic with parents. It is particularly difficult when a youngster rarely gets into a game because he or she doesn't really have the heart for it, and the parents are very unhappy with you. You know that the primary reason this youngster stays on the team is because Dad or Mom wants it.

Your first impulse might be simply to face these parents and tell them their child isn't playing because he or she doesn't really like to compete. It may be that in certain situations this would be your best course of action. But you should also consider that being painfully blunt simply to stifle personal criticism could destroy a boy or girl in the parents' eyes. If this is the case, you need to look for other diplomatic ways, less painful to all concerned, to answer these parents. You might elect to remain silent and simply take the criticism, or you might say, "You are right. I'll give this some consideration." and then do what you think best anyway. The most important concern in this problem is what happens to the youngster. Your actions should be dictated by this concern.

The following anecdote provides a good description of diplomacy. An office boy noticed two women at lunch with the boss. Later in the day he asked, "Who were those women I saw you with?" The boss replied that one of them was the most beautiful actress in the world and the other was his wife. The youngster said, "Which one was the actress?" The boss took out a ten-dollar bill and gave it to the lad. "What's this for." asked the boy. "Nothing," replied the boss. "I just want you to remember when you get to be president that I once lent you money."

ORGANIZER

The ability to organize well is critical for any coach in any sport. There are three phases of organization. The first applies to the head coach, and the others apply to the coaching staff and team. All of these are discussed thoroughly in subsequent chapters. Suffice it to say here that the ability to organize is a trait of all successful coaches.

DETECTIVE

Although "detective work" is not one of the pleasant roles associated with coaching, it sometimes becomes a problem for you. Some of the circumstances that could force you into it are: stealing in the locker room; rumors that an athlete or athletes were involved in rules violations; or a principal's reporting a suspicion or accusation regarding someone on your team and telling you to get to the bottom of the situation at once.

Normally such tasks are difficult and unpleasant, but in most instances you cannot simply walk away from the problem. The way you deal with such problems depends a lot on your personality and rapport with the athletes, the degree of mutual respect between you and the athletes, and the circumstances. A great deal of good judgment is required on your part.

PSYCHOLOGIST

One of your greatest concerns will be to try to understand the personality of a team as well as the personalities of the team members so that you can motivate them to perform to the best of their ability. The days of the highly emotional, gimmick-laden locker-room pep talks as a steady diet are over. Youngsters today are perceptive enough to see through gimmicks, and appealing to their emotions too often is risky. Remember, a team can reach an emotional peak just so many times in a season before it falls flat. The method then becomes meaningless. This does not mean that there is

no room for occasional inspirational talks throughout the season, but to rely solely on them to get a team up to play each game is a mistake.

Beginning coaches will learn how to handle this important aspect of coaching through the trial and error of experience. The important thing to remember is the need to establish good rapport with the athletes and to determine as quickly as possible just what makes each of them tick. Then you can determine the best possible approach to that team. Be careful about doing something that is foreign to your nature; such actions generally will be ineffective and adversely affect the team. Be yourself.

The key word is understanding, and the faster you can determine how to reach each individual athlete, the sooner you can help them realize whatever potential they have. A common mistake of most beginning coaches, especially coaches of team sports, is to assume that everyone on a team can be dealt with the same way. This is not true. Each individual is different, and a shotgun approach to motivating a group of athletes is not the best way of achieving the desired results—peak performance and winning.

Researchers have identified certain personality traits that create high degrees of anxiety among athletes—traits that indicate which athletes can and should take a good scolding and which athletes cannot, and traits that indicate which athletes need to be left alone or praised.

It may be that these researchers are simply reinforcing what successful coaches have been aware of for a long time but haven't taken the time to contemplate. At any rate, there is some convincing evidence that dealing with individuals according to their personality is the crucial element in determining the success or failure of many athletes. How the athletes react to you and whether or not they will finish a season or quit the team depend on individual traits. This aspect of coaching will always be a challenge for coaches.

JUDGE AND JURY

Regardless of the number of coaches on a staff, the head coach alone plays judge and jury. Many situations throughout a sports season require hard decisions by the head coach, who has the final responsibility for everything concerning the team and staff. When questions are asked, the head coach is accountable and is the one who must come up with the answers.

In every situation, assistant coaches can only advise and offer opinions. The head coach's responsibility becomes especially evident in potentially troublesome or controversial situations such as disciplining an athlete, dismissing an athlete from the team, issuing certain policy statements, deciding whether or not a boy or girl will

be allowed to come out for a team because of previous difficulties in or out of the school, and deciding cases when no school policy exists. When the chips are down, the head coach has to cast the deciding vote, as always. This role cannot be delegated. Good judgment, based on experience or plain common sense, is the key.

This role can become unpleasant on occasion, but it cannot be ignored. A head coach must have the courage and the backbone to act in the face of possible criticism. It is vitally important that a head coach formulate a personal philosophy of coaching and athletics upon which to base important decisions.

LEADER

There are three kinds of leaders:
1. Rowboat—A leader who goes only where pulled.
2. Sailboat—a leader who goes in the direction the wind blows.
3. Motorboat—a leader who determines a direction and plows ahead to reach a goal.

Leadership is not so much leading as having the people led accept you. You know how you do that? You've got to win the hearts of the people that you lead. The personality of the individual has to do it.

—Coach Lombardi

Another description of "dynamic leadership is:
When in doubt—ponder.
When in trouble—delegate.
When you don't know—mumble.

Which of these three descriptions best describes you and your leadership ability? How do you think your colleagues would rate you?

You must establish leadership in three primary areas: the team, the staff, and the school faculty. There are many obvious ways to exhibit leadership in the first two areas—by image, example, dedication, personality, knowledge, courage of convictions, integrity, dignity, and loyalty. Most coaches are well aware of these and of the importance of filling the leadership role, but often coaches forget or ignore the role's importance within the faculty.

One criticism frequently leveled at coaches is that they live in their own world, with little regard for anything or anyone else, or with little concern for the school as a whole. In some situations this is no doubt a legitimate criticism; in others it may not be justified. However, when coaches become so involved in a sport that they make little or no effort to show interest in other facets of the school community, the assumption is that they just don't care.

You should not allow yourself to acquire this kind of image. If the rest of the faculty realize that you do care about something other

than sports, they will be more apt to cooperate with the athletic department when necessary. Teachers will be more willing to help athletes who are having difficulty, and there will be much more pleasant working relationships among various departments in the school. You should do your best to eliminate the idea that coaches set themselves apart from the common folk (teachers) because they occupy a privileged position in the school.

You can use your leadership ability by attending teachers' meetings, by serving on teachers' committees such as those involved in negotiations on salary and professional rights and responsibilities, and by serving as head of some of these committees when time permits. Some of these activities might be short-term obligations that can be completed in the off-season. Accepting these kinds of responsibilities can add to your stature among faculty members; it will make you feel closer to the school, contribute to the good of the school, and help prevent criticism of athletics by faculty members who might otherwise resent your isolation from the rest of school life.

Attendance at band concerts and plays is something else you should consider as a gesture of genuine interest in other phases of the school. This also makes a positive impression on athletes who are participating in these events. You will find it helpful to see these young people in a light other than that of the locker room or playing field, and the better you know them, the easier it is to understand them.

MOTHER FIGURE/FATHER FIGURE

Your role as mother figure or father figure varies according to the age of the athletes and the school situation. As might be expected, boys and girls who come from homes with only one parent, from an orphanage, or from homes where parents do not care probably have the greatest need for a parental relationship, and they frequently look to a coach to fill it. They need someone to talk to; they often need someone other than a parent to listen to them; and they sometimes simply need adult advice from someone in addition to or other than a member of their family.

You will soon discover that this need exists among students from homes at all economic levels. Young people sometimes need a relationship in addition to the one they have at home or because it doesn't exist at home. In our society, with the breaking down of the structure of families, a teacher who really cares may be the most influential person in a youngster's life.

Just be careful—don't get too close and cross that invisible line between teacher and student, especially if you are coaching a team whose gender is different from yours.

DICTATOR

There are a lot of connotations associated with the word *dictator*, most of them uncomplimentary. But here I mean a benevolent dictator. A benevolent dictator cares about the program, the team, and the people involved but nevertheless finds that there are times when a decision must be made without any time for discussion. A benevolent dictator makes these decisions according to what is best for everyone concerned. Since the head coach is the individual in charge, the head coach's word has to be final—always.

When coaches on a staff disagree or cannot come to an agreement about some item concerning the team, the head coach must make a decision that everyone will be expected to abide by. In other words, if there are four assistant coaches on a staff, the head coach always carries five votes. This is not to say that the democratic procedure has no place in coaching, but coaches and athletes must also learn that in the excitement of competition there are circumstances which demand that they react instantly and without question to decisions and instructions from the head coach. This is no time to have a committee meeting. A good leader tolerates uncertainty only up to a point.

POLITICIAN

Regardless of the provocation, you should make every effort to avoid antagonizing people, particularly the parents of boys and girls who are members of a team. A good politician learns how to do this very quickly. Perhaps this role goes hand-in-hand with diplomacy.

This role comes into play most often when you deal with critics in the community. Ideally, they wouldn't exist, and if they did, we could ignore them and simply coach the team. But in reality, they cannot be ignored, nor should they be. If left unchecked, these critics sometimes grow like a cancer and can create serious problems for you. The coach who is a politician can do a great deal toward preventing critics from getting out of hand; he or she can avoid being forced into a confrontation—or worse.

Good politicians and good coaches also know that the time to make friends and firmly establish themselves is when the team is winning and at the top. When the tide turns—and cycles do occur in high school programs—you and the program will need every friend you can find. If you didn't line up friends when the team was riding the winning crest, you surely won't do it when the team is losing. Winston Churchill once said that the most important qualification for a politician was the ability to predict what will happen tomorrow, next week, next month, or next year—and be able to explain afterward why it did not happen. Could he have also been talking to coaches who end up on the wrong side of the season's won-lost record?

ACTOR

In the movie *Patton* the general reprimanded his staff because a job needed to be done, and he was not satisfied with the progress being made. After the group left, Patton's aide turned to him and said, "You really didn't mean all that, did you, General?" Patton simply replied, "No, but they don't know that." The point is that he was acting out a role to get a job done. In this respect, you too will find it necessary to act out certain parts when the situation requires it.

Sometimes you must play a role that is foreign to your personality, such as scolding an individual or team, or remaining very calm even though you feel like exploding. The pitfall to avoid is appearing phony. This will destroy what you are trying to do, because youngsters are not fooled for very long by insincerity. If you believe in what you are doing and recognize that the situation calls for a role to be played, you will find it can be an effective tool in accomplishing your goal.

The perceptive coach seldom fails to recognize when such situations arise. They cannot always be anticipated, but with experience and common sense you will be able to make a quick judgment about the proper response to select. The ultimate actor is the coach who, while being driven out of town by an irate community, makes it look as if he is leading a parade.

FUND-RAISER

Rarely do coaches feel they have enough funds to purchase the kind of equipment they would really like to have in the amount they think necessary. As a result coaches often dream up fund-raising projects to supplement their approved budgets. Candy, cookie, and hoagie sales are just a few examples. These campaigns might take place in school, in the community, or in both places at the same time. Some coaches, however, object very strongly to such fund-raising. They feel that it downgrades what they perceive as an important program in the school, and that hustling money should not be part of coaching. Coaches of the so-called minor sports are particularly sensitive to this, especially if coaches of basketball and football or other high-visibility sports don't have to raise money.

Some school districts strictly prohibit such fund-raising campaigns because they can create public relations problems in a community already financially burdened with supporting the schools. You should always check with the school administration before launching a fund-raising campaign, to avoid finding out after the fact that you are violating school policy.

CHIEF EXECUTIVE

Every head coach assumes the role of chief executive along with the position. Someone has to be in charge. Someone has to provide

direction for an entire program, which might include not only the varsity and varsity coaches but all the other teams and coaches in a particular sport down to the elementary level. Depending on the situation, this could constitute a fairly large organization, in which everyone involved would be looking to you, the head coach, for decisions and direction. The failure to recognize your obligation in filling your role could result in chaos, with everybody going off in different directions. It therefore becomes critical that you determine in your own mind precisely where you want your program to go before you attempt to guide others.

EQUIPMENT MANAGER

Rarely does a high school employ someone whose sole job is to take care of athletic equipment. As a result, the ultimate responsibility for purchasing, issuing, policing, collecting, and taking inventory of equipment will fall on you when you become head coach. For coaches of some sports, golf for example, this may not amount to very much, but for a football coach this job can become monumental.

Equipment problems can occur every day of the season and become a real nuisance. You will have to invest a great deal of thought, planning, and organization in this role. One way to deal with it, except for the final inventory, is to assign this duty to an assistant coach. If you have no assistants, a competent student manager might be able to handle at least some of the daily equipment problems, but in the end you will be accountable.

TRAINER

Because they feel they can't afford it, far too many high schools fail to provide the athletic department with a certified trainer, or even medical supervision during practices. As a result, the responsibility will fall directly on you. Therefore it becomes absolutely essential that you prepare yourself by learning as much as you can about first aid, prevention and treatment of athletic injuries, taping techniques, and CPR.

Serious concern is treating injuries where bleeding is present since life-threatening diseases can be transmitted through blood. Advice from the medical profession on proper treatment in a situation like this is critical.

Rules requiring or suggesting medical supervision at athletic events are violated repeatedly, and rarely observed at practices. You become responsible by default. The ability of school administrators in many states to hire part-time coaches, many of whom have not been professionally trained, has increased concern in this matter.

Not only is the health and welfare of your athletes a major concern, but so is legal liability, a concern you cannot afford to ignore.

Medical responsibility and legal liability are not to be taken lightly. If you are coaching now, or about to begin, make certain that you are prepared to deal with this crucial role.

CITIZEN OF THE COMMUNITY

There are basically three kinds of citizens: those who live in the community, those who live off the community, and those who live for the community.

The coach who merely lives in the community is one who only does a job at school; he or she doesn't care about what goes on in the community and therefore makes no contribution toward making the community a better place to live.

The coach who lives off the community is someone whose interest is primarily selfish. This coach is concerned only with using the community for personal gain—that is, moving on to a better job, getting special deals from the merchants in town, and accepting what the community can do for him or her.

The coach who lives for the community has a genuine desire to be a part of the community and to contribute in any way possible. This often means serving the parent-teacher organization in some capacity, working as a member of a service club, participating in the work of a civic group, helping to organize the neighborhood Fourth of July parade, or volunteering time to the cancer crusade, heart drive, and so on.

Regardless of your personal goals and ambitions, you could be missing some of the pleasures of being a coach and occupying that special role in a community if you don't take the opportunity to become a part of the community. No matter how short your stay may be before a better position comes along, you could feel a tremendous inner satisfaction if you thought that a community was just a little better place in which to live, for a moment anyway, because you worked hard to help make it that way. Don't confuse this satisfaction with conceit; this is a good feeling that comes with the knowledge that you have made a contribution to something or somebody just because you wanted to.

CITIZEN OF THE SCHOOL

Some coaches isolate themselves in their sports. As mentioned previously, this nonparticipation tends to bring criticism from other faculty members, who assume that coaches don't care for anything in the school that doesn't pertain to their team. Some faculty

members resent these types of coaches for not fulfilling all the obligations of a teacher. The responsibilities of being a teacher do not begin and end with teaching classes or coaching a team. You will quickly discover that there are many other duties and obligations involved in teaching, and everyone is expected to share in these as much as possible, including coaches.

Many coaches use the excuse that they don't have time. The argument gets no sympathy from fellow faculty members, because coaches are usually paid extra for coaching. While other teachers spend time after school at committee meetings without pay, the coach is spending time at practice with pay, and this can become a very touchy point.

You ought to make a genuine effort to be a part of the school and to participate in social functions with the faculty. Letting the teachers get to know you can help eliminate any suspicion they might have that all coaches see themselves as privileged characters and have little regard for anything or anyone outside the athletic department. Besides, you could become friends with some pretty fine people.

Sometime when you're feeling important
Sometimes when your ego's in bloom
Sometime when you take it for granted
You're the best qualified in the room.
Sometime when you feel that your going
Would leave an unfillable hole
Just follow these simple instructions
And see how it humbles your soul.
Take a bucket and fill it with water
Put your hand in it up to the wrist,
Pull it out and the hole that's remaining
Is the measure of how you'll be missed.
You may splash all you please when you enter
You may stir up the water galore
But stop and you'll find in a minute
That it looks just the same as before.
The moral of this quaint example
Is do just the best that you can
Be proud of yourself, but remember
There is no indispensable "man."
—Author Unknown

DISCUSSION QUESTIONS

1. How can a coach be himself or herself and still fill the roles discussed in this chapter?
2. "What you are speaks so loudly that I cannot hear what you are saying." Discuss this statement and the image you plan to present as a high school coach.

3. What is the difference between image and example?
4. What does the term "coach" signify to you?
5. Give some examples of ways in which a coach can be a citizen of a community.
6. Should coaches live in the community where they teach? Why?
7. What kind of image do you want high school athletes to have of you?
8. How would you describe nonverbal communication? Give some examples.
9. Why do coaches need to understand the concept of nonverbal communication?
10. What does it mean when a team or athlete is described as "disciplined?"
11. Why are role models necessary for athletes?
12. Interpret this statement: "To discipline youngsters is to love them."
13. Interpret this statement: "A skillful leader is one who does what he can, with what he has, where he is."
14. Do you believe coaches really teach by example and image?
15. Do you believe your personal life should be a concern of the school administration? Why?
16. "You never have to meet the general of an army: if you meet his troops, you know him." How can this be applied to athletics? What are the implications for coaches and athletes?

Drake University gratefully acknowledges the permission of the Collegiate Press and R.J. Sabock for reproduction of Coaching: A Realistic Perspective, "Roles of a Head Coach", pp. 111 - 130.

Special Focus Coaching

Actions Speak Louder Than Words

Valerie King

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In this day, when sports programs are being systematically scaled down or eliminated to relieve pressure on strained school budgets, many educators and public figures are fighting back by emphasizing the value of extracurricular sports in the development of self-discipline, cooperation, fair play, and respect for rules.

Few would argue with the potential benefits that sports participation can offer; however, participation in a sport does not ensure that such desired behaviors and attitudes will automatically occur. We must also closely examine the role of the environment (e.g., level of competition, the coach) on the develop0ment of sportslike and moral character.

In many schools, sports have become so competitive and win-oriented, that the definitions of acceptable behavior, fair play, respect, and honesty are now clouded. In plenty of cases, behaviors that would not be considered good conduct in daily life are actually condoned and even encouraged in sport settings. How can we defend school athletics against cutbacks if the sport environment does not fulfill its potential to teach positive values and behavior?

The Coach

What is the role of the coach the value development process? Social learning theorists have repeatedly noted the importance of the coach as a role model and as a socializing agent who can reward or punish athletes' behaviors, and thus help students build positive believe systems and personal conduct.

Structural-developmentalists claim it is important for learners to fully comprehend the cognitive reasoning behind their actions and how those actions will affect them as individuals. Using this line of thought, an athlete decides upon the "rightness" or "wrongness" of a behavior or issue based upon the physical and/or psychological consequences it would bring. A coach's role in this moral development process would be to emphasize the desired traits (e.g., fair play, respect) until they become internalized principles that guide the athlete's' behavior and decision making process.

But perhaps more emphasis should be focused on the coach's own actions as a primary model of desired behavior. We cannot overlook the coach and how his/her actions affect the athletes because coaches cannot expect their athletes to demonstrate good sport behavior if they themselves display questionable behaviors. The philosophy of "do as I say and not as I do" will not produce positive traits in young athletes.

Evaluating Yourself

Following this article is a quiz designed to help coaches determine how effectively they serve as appropriate role models. It features several situations that typically occur in a sport setting. To assess your own practices, read each dilemma and indicate how you (as a coach) would react to the situation. After you have responded to all twenty-three situations, total your score and compare it with the analysis key.

As you review your score, think about what kind of messages you are sending to your athletes with your coaching behavior. What kind of actions and attitudes are you modeling and/or reinforcing to these young people? Are they learning to show respect, sportslike conduct, and cooperation from your actions? Are your actions consistent, or do you let some situations slide by without appropriate attention? If you responded that your reactions would vary according to the situation (e.g., severity of act, the competitiveness of the situation), do your athletes know how it is "appropriate" to behave in one situation versus another?

Now that you have indicated how you would respond, consider your athletes. Go back through each scenario at a team meeting and discuss with your athletes how they would respond to these sport related situations. Or perhaps duplicate the quiz and ask team members to take it anonymously, then share the overall results at a team meeting.

Compare your athletes' score to the key. Did they respond in a way you would want them to, and how did their responses compare to your own? If they responded with answers similar to yours, does that mean they show respect for the game rules, officials, and their

opponents? Do they compliment others (teammate or opponent) for a nice play or help another player when he or she has fallen down? If they responded as you hoped they would, do you have a plan to reinforce these behaviors? How and when?

If you and/or your athletes did not score as high on the questionnaire as you would like, perhaps it is time to re-evaluate your coaching philosophy or the objectives of your program. Some other questions to ask yourself include:

- Do you take the time to teach (reinforce, model) such desired behaviors as cooperation, fair play, etc? Or, do you expect your athletes to obtain such behaviors vicariously?

- Do you take a few moments during practices or after a game to discuss moral dilemmas that have come up (e.g., questioning an official's call, fouling an opponent).

- Have you expressly spoken with your team about why unwritten rules are just as important as written rules?

Sport has the potential to provide many positive experiences. Participation can nurture such desired characteristics as cooperation, self-discipline, fair play, and honesty. A coach's personal attitudes, beliefs, and behaviors may be as powerful a teaching tool for formulating such characteristics as any formal instructional method that exists. As they say: Actions speak louder than words *or* good intentions.

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Are You a Good Sport?

Take this quiz and assess your own actions and attitudes—those your team sees every day.

Directions:

Read each statement and check the way you would react to the situation. Be honest.
After responding to all twenty-three situations, circle questions 1, 4, 8, 10, 12, 16, 17, 18, 21. Score these questions as follows: 5=Never, 4=Rarely, 3=Depending on Situation, 2=Sometimes, 1=Always. Scoring for the remaining questions is 5=Always, 4=Sometimes, 3=Depending on Situation, 2=Rarely, 1=Never. Total your score for all of the questions.
Compare your score with the key below.

As a Coach:

_____ 1. I play only by written rules of the game.
_____ 2. I allow the official to call the game since that is his/her job.
_____ 3. I am a gracious winner no matter who my opponent is.
_____ 4. I intentionally foul my opponent if I can gain a tactical advantage from it.
_____ 5. I take advantage of teaching opportunities (e.g., discuss how a controversial call could have affected the game).
_____ 6. I ask for my players' (teammates') opinions regarding team strategy.
_____ 7. I reinforce negative sanctions (e.g., penalties) issued against my team.
_____ 8. I aggressively argue call(s) with the official.
_____ 9. I respect the opponent no matter who it is.
_____ 10. I emphasize winning.
_____ 11. I shake hands and/or cordially speak to the opponent after every competition.
_____ 12. I lose my temper over a bad call.
_____ 13. I discuss issues or dilemmas which have occurred either in practice or a game with team members.
_____ 14. I talk about the informal rules of the game (e.g., dress, etiquette) with the team.
_____ 15. I admit to and apologize (if necessary) about making a mistake.
_____ 16. I confront any hostile fan or parent who provokes me.
_____ 17. I use cursing language while competing.
_____ 18. I would do something provocative (e.g., technical foul) if I thought it would help my team.
_____ 19. I compliment a good play (no matter which team/player performed it).
_____ 20. I uphold the team rules no matter what the circumstances are and for whom.
_____ 21. I teach that team work is "protecting" each other.
_____ 22. I emphasize playing the sport for the fun of it.
_____ 23. I discuss with the team issues or dilemmas which might occur in the future.

Rating Scale for Ethical Behavior:

105-115 Excellent 95-104 Good 75-94 Average 55-74 Below Average Below 55 Poor

TEACHER-COACH ROLE CONFLICT: ITS IMPACT ON STUDENTS AND STUDENT-ATHLETES

Albert J. Figone

The issue of the teacher-coach performing teaching duties within a unit which houses physical education and athletics is not new. The primary substance of the issue lies in the way the teacher-coach perceives and implements the dual roles of coaching and teaching physical education. The primary goals for coaching are: (1) display for sports fans, and (2) the promotion of positive institutional relations. The primary goals of teaching physical education are the psychomotor, cognitive, and affective development of students (Fraleigh, 1985).

One obvious manifestation of the tension caused by the nature of the dual roles is the frequently cited teacher-coach role conflict. For purposes of this paper teacher-coach role conflict is defined as: "The experience of role stress and role strain due to the conflicting multiple demands of teaching and coaching" (Sage, 1987, p. 217-218). High levels of role strain, defined as "subjective feelings of frustration, tension or anxiety" (Goode, 1973), are associated with low quality work, low job satisfaction, absenteeism, and quitting (Hardy & Conway, 1978). Individuals may experience cognitive dissonance and physical tension when attempting to effectively fulfill the expressed expectations of both roles. In most cases, the teacher-coach either falls short of these expectancies of both roles or devotes time and energy toward one role, thereby neglecting the other. Massengale (1981) has described the latter process as "role retreatism"; a strategy which allows the teacher/coach to ameliorate the real or perceived role conflict between teaching and coaching. In institutions where individuals retain teaching and coaching roles, colleagues who accept the primary goals of physical education become highly critical of both poor instruction and the lack of commitment of the teacher-coach to physical education (Fraleigh, 1985). To ameliorate this dilemma, individuals in these dual positions have adopted a variety of coping strategies designed to ensure career mobility and coaching success. When teacher-coaches are unsuccessful in resolving professional conflicts, such as inadequate teaching performance, these conflicts often times increase in intensity and number. Job and career dissatisfaction may surface; especially if coaching is viewed as the primary occupation (Sage, 1987).

Given the reality of most teaching-coaching situations, where coaches perceive and expressly receive contractual mandates to produce successful programs, it is inevitable that individuals occupying the dual positions will seek to either minimize or eliminate this inherent role conflict. The purpose of this paper will be to examine the causes and nature of teacher-coach role conflict and discuss its impact on regular students and student-athletes in four-year institutions.

Sage (1989) and Massengale (1981) have described a variety of causes of teacher-coach role conflict. While it may be inconclusive to state that there is a socialization process which prospective teacher-coaches experience prior to occupational entry, it is clear that many perceive themselves as part of a larger group; a coaching subculture with its own rules, regulations, and

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norms which possesses formal and informal prescribed role behaviors. Teacher-coaches socialized as part of this subculture quickly learn that good coaching positions are rarely obtainable through normal placement procedures. Open competitive bidding is a rarity and better positions are obtainable when applicants have the support of significant others from within the occupational subculture of coaching. The subculture becomes a referral system and a sponsor that is capable of establishing favored model concepts, while determining and prescribing behaviors which are held to be in the highest esteem. The antagonistic relationship which may develop between the teacher-coach and other college or university personnel aids in the development of subculture solidarity and tends to rally the membership around those unique factors which created the necessity for the subculture in the first place (Locke & Massengale, 1978; Sage, 1989).

Since satisfying experiences resulting from involvement in competitive sport may have been the original motivation for becoming a teacher-coach, dual-role occupants may perceive teaching responsibilities as the cause of the role conflict. Teacher-coaches recognize they are seldom fired for their academic reputation or teaching performance; thus, out of necessity for professional survival, they spend a majority of their time and energy in the coaching portion of their job (Coakley, 1990).

Chu (1979, 1981) has postulated that teacher-coach role conflict is organizationally induced. At the same time that teacher-coaches are rewarded for coaching success, they are accorded the responsibility by many institutions to be full-time teachers. Chu (1981) further hypothesized that, given the perennial difficulties institutions have experienced in justifying and rationalizing the existence of athletics in higher education, administrative structures in physical education have been systematically constructed to justify the existence of personnel primarily engaged in athletic duties. Faculty groups such as academic senates, regional certifying agencies, and professional organizations have exerted pressures on administrators to justify all faculty hired as being directly related to the educational (not athletic) mission of the organization. As a result, teacher-coaches functionally operate to attain the support of the above groups for the athletic programs of institutions.

Given the diverse and incompatible nature of the dual roles, many institutions have justified the housing of physical education and athletics under one roof by redefining the dual responsibilities of teacher-coaches.

The primary components of this redefinition include:

1. Teacher-coaches are able to effectively perform both roles.
2. Teaching is the same as coaching with the only difference being the skill level and motivation of the participants.
3. Those entering teaching and coaching are equally interested in both roles and will devote equal time to both roles.

In reality, most teaching-coaching job demands are different from the above aspects in that:

1. The time demands of coaching place teacher-coaches under extreme pressure. Chu (1981) found that teaching consumes 23.6 hours of male and 27.9 female hours per working week during a non-coaching season, and males devote 65.3 hours and females 50.1 hours to the combined duties of teaching and coaching during an athletic season.
2. Teaching and coaching are different in terms of instructional requirements, participants' skill levels, and motivation, time availability, equipment, facilities, and instructor-student ratio.
3. Teacher-coaches are not equally interested in their performance in both roles. In separate studies, Chu (1980) and Segrave (1980) found that approximately 63% of pre-service students preferred the coaching role.

Frey (1985) has described the way athletic programs operate with relative freedom and independence from institutional controls. The

forging of linkages with external groups reinforces the incompatibility of academic and athletic units and renders teacher-coaches more accountable to external groups (alumni, resource bearing groups, and booster groups) than to academic units. Since most institutions at all levels are dependent upon external funding in order to operate an athletic program, many teacher-coaches view their primary responsibility as one which is to generate revenue (especially in football and basketball) by operating winning programs (Cady, 1978; Coakley, 1990). Thus, out of necessity teacher-coaches may reject academic roles in order to minimize the dilemma as to which set of responsibilities should have priority--those of the teacher or those of the coach.

Teacher-coach role conflict as discussed in this paper may compromise the physical education teaching profession. The internal analysis of this phenomena by many investigators and the macro analysis by Chu (1979, 1981) and Frey (1985) regarding the same issue fail to address the impact of this conflict on regular students and student-athletes. Teacher-coach role conflict and the institutional redefinition of the roles of teacher-coaches have a direct influence on students and student-athletes (Biddle, 1979; Calder & Schurr, 1981; Larson, 1977). This influence may take various forms.

First, it may be manipulative in regards to student athletes. Given the time demands in any athletic program, obtaining a quality education is virtually impossible for many student-athletes. Studying, as serious students know, is difficult under the best of circumstances. Serious study, after many hours of strenuous practice, films and team meetings, is all but impossible. College sport at any level is a high stress endeavor and imposes tremendous demands on the human psyche. This psychic drain, more than anything else, places a severe restriction on the quality of education student-athletes receive. Under these conditions, student-athletes are forced to take academic shortcuts. The choice of courses, the daily schedule of classes, and the selection of a major are decisions made to guarantee that academic concerns will not hinder athletic success. The critical point is that student-athletes in many cases are more likely than the average student to be denied the opportunity to develop intellectually, even when they desire to do so (Sack, 1987; Sperber, 1993).

How do teacher-coaches legitimize the incompatibility of time demands generated by the dual roles of student-athletes? A frequent reaction of the teacher-coach is to attribute intellectual and educational value to sports participation itself. Implicit in teacher-coaches' claims that sports participation is "conducive to intellectual development" is the comforting assumption that no matter how far out of line their actions may be in teaching performance, or in time demands of student-athletes, they more than compensate through the loyal fulfillment of institutionally mandated coaching responsibilities (Edwards, 1973).

Second, indifference to the academic achievement of students in classes taught by teacher-coaches may be the norm, especially when course content requires extensive preparation and updated knowledge. Expediency becomes the strategy as teacher-coaches conform to the role expectations of those individuals, such as the athletic director, who are perceived as possessing the power to establish rewards and sanctions. The form which expediency takes may be to establish easy course standards and minimal scholarship requirements. Teacher-coaches may ignore normal teaching role expectations despite their legitimacy and may appear to be unaware of any academic structure, rules, or regulations (Figone, 1993; Massengale, 1981; Sage, 1987).

Third, latent hostility towards students and student-athletes may become a typical behavior. This manifests itself, ordinarily, in interpersonal contacts. Coaches typically demand deference and compliance from student-athletes, usually deny them any active participation in decision-making, and enforce maximum social distance. In recruiting, it is frequently asserted that the athletic program, department of physical education and teacher-coaches are there to serve students and student-athletes. Thus, as-

sumed service and friendliness have an obvious significance in recruiting. However, when the hard reality of winning and losing appears, teacher-coaches find themselves manifesting behaviors reflecting hard-boiled rationality designed to mask disgust and disillusionment over inadequate athletic performance. As a result, teaching duties and regular students may be seen as obstacles to athletic success and time required to fulfill normal faculty duties (committee work, research, and professional service) is viewed as time taken away from coaching (Sage, 1987).

Fourth, teacher-coaches may experience increased tension and reduced trust in colleagues not associated with coaching. When unfavorable evaluations regarding teaching are expressed to teacher-coaches, they often are not heard. These distortions are effective in that they serve to maintain self-esteem and self confidence in the primary perceived role of coaching. There are other reasons for failing to receive negative evaluations from colleagues regarding teaching. A common response to derogatory comments from others is a hostile counterattack. But aggression, no matter how well founded in righteous indignation, is so destructive to fruitful collaborative relations that it must often be suppressed in situations of continued interdependence. When people must work closely together, as is typical in a combined Department of Physical Education and Athletics, there is good reason to expect negative evaluations of teaching to be suppressed both at the source (by those holding unfavorable evaluations) and at the point of reception (by those who are offended by them). Thus, while effective coaching performance is viewed as critical in terms of job security, ineffective teaching performance is reinforced by the absence of any feedback (Dingwall & Lewis, 1983; Larson, 1977).

Fifth, some teacher-coaches may side with student-athletes against their own colleagues in matters regarding standards for student achievement. When there are academically marginal student-athletes enrolled in courses taught by colleagues not involved in coaching, the expectation is that the student-athlete's inadequate academic performance will be overlooked or at least evaluated in a more lenient manner than nonstudent-athletes. When this is not the case, tensions between teacher-coaches and colleagues may escalate to the point where teacher-coaches and student-athletes perceive the colleague as one who is antagonistic towards athletics, not interested in promoting departmental harmony, and not supportive of colleagues who have coaching responsibilities. Of course, this masks the student-athlete's academic deficiencies (Lapchick & Malekoff, 1987).

Sixth, and finally, the professional relationships which may emerge within a department when there is a conflict of values regarding occupational objectives, may become so disorganized and full of friction that constructive interaction and communication is virtually impossible. Given the natural tensions which may evolve between coaching and non-coaching faculty, devices are established by each group for self-protection. The form this may take varies. Some individuals may "feign" cooperation in order to avoid conflicts, while others may work "undercover" for organizational change. In some cases, teacher-coaches and academic faculty avoid meeting each other informally or in extreme cases do not find time to attend department meetings. The inability of administrators to resolve these intergroup conflicts may be viewed by both groups as justification and reason enough for pursuing separate professional paths and constructing self-protective devices. Of course, students and student-athletes are not shielded from these conflicts. If one of the outcomes of the educational experience is the internalization of occupational values held by teacher-coaches and academic faculty, any kind of professional conflict is bound to impact those individuals who are most directly influenced by the above groups (Lortie, 1975).

This paper has attempted to examine the causes and nature of teacher-coach role conflict and its impact on students and student-athletes. The reality of the situation is that role prescrip-

tions of teacher-coaches will not be modified and institutions will not change their interpretation of athletics as a "marketing commodity." Empirical research is needed to demonstrate the negative impact of this problem on students and student-athletes within higher education. Such an analysis may indeed demonstrate that teacher-coach role conflict not only impacts teacher-coaches, but more importantly, has serious consequences regarding the educational attainment of students and student-athletes.

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Teacher-Coach Burnout and Coping Strategies

Boonsong Kosa

Burnout in the teaching profession has received much attention recently. Stressful conditions prevailing on the job have been observed (Farber & Miller, 1981; Heck & Williams, 1984; Landsmann, 1978; Paine, 1982). There is a growing public concern, especially among educators, to develop measures of curtailing or minimizing the prevalence of this unfavorable phenomenon.

Efforts are being exerted as evidenced by the National Education Association (NEA) Resolution E79-81 rallying support of its membership and local affiliates, in cooperation with local school authorities, to develop programs to help recognize, prevent, and find remedial treatment of stress-related problems (Moe, 1979). The consequences of burnout not only affect the school and the students but are devastating to the teacher. Developing coping strategies by identifying successful and unsuccessful coping with burnout will provide proper perspectives in the study of burnout.

It has been found that burnout correlates with symptoms of stress such as addiction to alcohol, cases of mental illness, marital problems, and in extreme cases, suicide (Maslach, 1976). As observed by Schwab et al. (1986), consequences of burnout were manifested in different behaviors in relation to the dimension of burnout experienced by the teacher. These three dimensions of burnout were identified in the Maslach Burnout Inventory (Maslach & Jackson, 1981) as: emotional exhaustion, depersonalization, and personal accomplishment. Teacher turnover and absenteeism as well as home and personal problems were attributed to emotional exhaustion. Loss of enthusiasm in one's work and deteriorating relationships with home members were characteristic of those experiencing depersonalization and low feelings of accomplishment. It appears, therefore, that burnout not only results in a decline in the quality of teaching; it also negatively affects the quality of the teacher's personal life.

Generally, the dual role of teacher-coaches in the public schools is seen to have many incompatible characteristics. This being the case, burnout is likely to occur. With such a stressful environment, physical and mental illnesses are apt to afflict talented teachers turning them away from teaching and coaching professions (Warheit, 1979). The consequences may be costly for both the teacher-coach who has invested time and money in the pursuit of a career to teach and/or to coach and for the school in its effort to develop effective athletic programs. Since role incompatibilities are inherent to the dual role of teaching-coaching, the teacher-coach must accept the reality of the situation and develop self-awareness and recognition of symptoms to be able to find effective ways of coping to avoid burnout.

Burnout cannot be controlled until strategies are developed that confront the issues on the institutional as well as on the individual level (Kahn, 1978). Horton (1984) stated that the solutions for burnout are within the realms of the school administrators, teacher educators, curriculum planners, and within the power of the teachers. Evaluation is necessary to determine systematically what coping strategies are successful and what strategies are unsuccessful. The purpose of this research was to determine the levels of burnout among teacher-coaches and common coping strategies used to alleviate burnout.

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Method

Sample

The sample was composed of 193 secondary public school teacher-coaches of Oregon who volunterred to participate in this research. They are regular teachers with coaching responsibilities.

Instrument

The variables, burnout and coping were measured by using a self-response paper-pencil questionnaire composed of two sections. The first section was adopted from the Maslach Burnout Inventory (Maslach & Jackson, 1981) measuring burnout frequency and intensity in emotional exhaustion, depersonalization, and personal accomplishment. The second section was the Jaloweic Coping Strategies Inventory (Jaloweic & Powers, 1981) used to identify coping strategies commonly employed by teacher-coaches.

Procedure

The sample frame was identified by requesting a list of teacher-coaches from each of the 253 public secondary schools of Oregon (Oregon Department of Education, 1987). A total of 172 schools responded contributing to a total list of 1,866 teacher-coaches.

The research sample consisted of 416 teacher-coaches randomly selected from the sample frame. A total of 193 teacher-coaches returned the completed questionnaire.

The two-section questionnaire was mailed to the 416 research sample. Three weeks after the initial mailing, a follow-up card was sent to non-respondents and telephone calls were made to respondents who failed to return the completed questionnaire after the follow-up card. Data were analyzed using the Statistical Package for the Social Sciences (SPSS) computer program. Reliability coefficients of the scales in the instrument were computed using the Cronbach coefficient alpha, while statistical significance of relationships was determined using the chi-square test of independence with the alpha level set at .05.

Results

Instrument Validity

Reliability coefficients (Cronbach's alpha) for the modified Maslach Burnout Inventory (MBI) subscales (N = 147) were as follows: emotional exhaustion frequency (9 items) = .89, emotional exhaustion intensity (9 items) = .84, depersonalization frequency (5 items) = .78, depersonalization intensity (5 items) = .76, personal accomplishment frequency (8 items) = .70, and personal accomplishment intensity (8 items) = .76. The overall reliability coefficient for frequency was .82 and the overall reliability coefficient for intensity was .82.

For the Jaloweic Coping Scale (N = 147), the reliability coefficients were: problem-focused (10 items) = .73, tension-releasing (18 items) = .76, morale-maintaining (9 items) = .55, and other-directed (3 items) = .14. The overall reliability coefficient was .75.

Level of Burnout Among Teacher-Coaches

The level of burnout among teacher-coaches was addressed by analyzing the MBI scores using descriptive statistics. Maslach and Jackson (1981) devised a tri-level (low, moderate, high) categorization of burnout ranges which was adopted to determine the level of burnout. Table 1 shows the level of burnout among teacher-coaches.

Data show that moderate level of burnout was experienced by teacher-coaches for each of the three aspects of burnout in either dimension of frequency and intensity.

Relationship Between Coping Strategies and Burnout

The coping strategies employed by teachers-coaches with low-level burnout and those of high-level burnout were examined. Table 2 presents a summary of chi-square p – values obtained from crosstabulating each of the six aspects of burnout with each of the four categories of coping strategies.

Results of the chi-square test show that problem-focused coping is significantly related to de-

Table 1

Level of Burnout Among Teacher-Coaches

Burnout Subscale	Mean	S. D.	Level of Burnout
Emotional Exhaustion			
Frequency	21.13	9.99	Moderate
Intensity	29.78	11.37	Moderate
Depersonalization			
Frequency	8.43	5.76	Moderate
Intensity	12.11	7.29	Moderate
Personal Accomplishment			
Frequency	38.23	5.49	Moderate
Intensity	42.05	6.22	Moderate

personalization frequency ($N = 193$, $p = .0006$) and intensity ($N = 193$, $p = .0435$), and personal accomplishment frequency ($N = 193$, $p = < .0001$) and intensity ($N = 193$, $p = < .0001$). Tension-releasing coping is significantly related to emotional exhaustion frequency ($N = 193$, $p = < .0001$) and intensity ($N = 193$, $p = < .0001$). Morale-maintaining coping is significantly related to depersonalization frequency ($N = 193$, $p = .0045$). Other-directed coping was not related to burnout.

Discussion

The experienced burnout among teacher-coaches is of moderate levels for each of the six burnout dimensions. the results concur with that of Capel et al (1987) who reported that head high school basketball coaches experienced moderate levels of emotional exhaustion and personal accomplishment. Capel et al, however, found low levels of depersonalization. Similarly, Capel (1986) indicated that athletic trainers did not experience high levels of burnout and among special education teachers Crane and Iwanicki (1986) moderate levels of burnout. It can be deduced from the results that burnout among teacher-coaches is a normal phenomenon in the teaching profession across different assignments or areas of specialization.

Findings on coping strategies used by teacher-coaches is supported by the results of Hare's (1986) study that problem-focused coping and tension-releasing coping were the primary predictors of burnout. Problem-focused coping

Table 2

Summary of the Chi-square P - Values Comparing Burnout Subscales by Coping Strategies Categories

Coping Strategies	Emotional Exhaustion		Depersonalization		Personal Accomplishment	
	Freq.	Int.	Freq.	Int.	Freq.	Int.
Problem-Focused	.2265	.3092	.0006*	.0435*	<.0001*	<.0001*
Tension-Releasing	<.0001*	<.0001*	<.0001*	<.0001*	.1306	.4695
Morale-Maintaining	.1359	.1600	.0045*	.0610	.2696	.5769
Other-Directed	.1914	.4311	.6699	.5542	.7100	.6933

*$p \leq .05$

was found to be negatively related to depersonalization frequency and intensity and low personal accomplishment frequency and intensity. The higher the reported level of burnout in depersonalization and low personal accomplishment, the less the use of problem-focused coping. This finding suggests that problem-focused coping is successful in alleviating depersonalization and feelings of low personal accomplishment among teacher-coaches.

Tension-releasing coping was positively related to emotional exhaustion frequency and intensity and depersonalization frequency and intensity. Although tension-releasing coping was used by teacher-coaches *rarely*, there is a strong positive relationship between the two variables in that the more the use of tension-releasing coping, the higher the burnout level in emotional exhaustion and depersonalization. This result is expected since the items under tension-releasing coping are basically negative behaviors like get mad, cry, smoke, worry, etc. These behaviors may not ease emotional exhaustion and depersonalization especially over the long term.

Moreover, it could be argued that tension-releasing strategies do not alleviate burnout but could even contribute to it.

Morale-maintaining coping is an inactive coping strategy. This coping strategy was reported to be used by teacher-coaches *sometimes*. There is a positive relationship between the frequency of use of this coping strategy and depersonalization frequency. Findings suggest that the more frequently morale-maintaining coping strategies are used, the more frequent will be the feelings of depersonalization.

The results of this research have implications for the institution as well as the individual teacher-coach. Intervention programs in cooperation with the school health personnel can help develop, implement, and evaluate early detection and prevention of burnout through in-service training regarding teacher stress and burnout (Belcastro & Gold, 1983).

The teacher-coach should be most involved in coping with burnout. Subscription to educational journals and magazines not only widens their knowledge base concerning burnout but also broadens perspectives and helps to develop higher self-confidence and inner strength to combat stress brought about by the nature of the profession. Teacher-coaches should endeavor to attend stress-management interventions not only for themselves but to better understand others around them. Teacher-coaches should attempt to break the frontiers of the "subculture's" (Massengale, 1974; 1977) confines by relating to the whole system rather than just within the coaches' sphere of association.

Malone and Rotella (1980) identified self-awareness and understanding the nature of coaching to be the best approach to preventing burnout. Awareness of the symptoms of burnout and awareness of one's personal values will promote a balance of the odds confronting the teacher-coach. □

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REDUCE AND PREVENT COACHING BURNOUT

Michael R. Judd, Donna L. Pastore & Betty Kelley

Today's coaches are under many pressures. They try to win games, recruit athletes, prepare facilities, travel to contests, and perform a variety of other duties. These pressures can build and, especially during the competitive season, cause coaches to become physically and emotionally exhausted. As the competitive season progresses, coaches may become so fatigued that they experience burnout.

What is Burnout?

There is not one, single definition for the term burnout because it can take many forms. Coaches who are burned out may feel like they cannot handle any more pressures, develop negative attitudes toward their athletes, or feel dissatisfied with their accomplishments. However, coaches do not have to feel this way. There are a great many strategies to help reduce and prevent coaching burnout. These strategies work in four different areas: physical health, mental and emotional health, coaches' relationships with themselves (intrarelationships), and coaches' relationships with others (interrelationships).

Physical Health

Although coaches are actively involved in sports, they sometimes neglect their own physical health. This tends to happen more during their competitive seasons. If coaches allow their physical health to deteriorate, they may have difficulty fulfilling their job requirements. Coaches should pay close attention to their lifestyles. They need to realize that proper exercise, nutrition, and adequate rest are extremely important. Coaches should start an exercise program that includes an aerobic activity such as walking, running, biking, or swimming. In addition to aerobic activities, coaches may want to participate in group

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activities. Coaches can join local recreational basketball, softball, or volleyball leagues, or play golf, tennis, or racquetball with some friends.

There are other ways to maintain physical health besides athletic activities. Coaches should avoid drinking alcohol or beverages that contain caffeine and get plenty of rest, including about seven to eight hours of sleep each night. Coaches should also take time out each day (about 15-20 minutes) to allow their bodies and minds a chance to rest. This time-out phase enables coaches to reorganize their thoughts and allows them to evaluate what may still have to be accomplished. This is valuable time, particularly prior to an athletic contest.

Mental and Emotional Health

In addition to taking care of themselves physically, coaches must maintain their mental and emotional well being. A positive mental and emotional attitude can help coaches to be more successful in their lives. There are many ways to achieve this because personal satisfaction depends on each person's desires. Whether it's a short walk or simply taking some quiet time alone, each day coaches should reward themselves with a small gift or treat. It is important for coaches to learn to tell others how they feel, this includes saying no to extra work. One of the most important things coaches need to remember is to have fun and engage in activities outside of sports with friends. Coaches should keep a positive attitude, look forward to every day, and remember to laugh once in a while.

Dealing With Yourself

There are a number of ways to alleviate the pressures involved in coaching. One way is for coaches to continually read and learn about current coaching techniques. They can add these new techniques to games and practices. Also, coaches need to set goals for themselves that go beyond the numerical and statistical performances of the teams. Coaches need to be flexible and they should remember to leave coaching headaches where they belong—on the field.

Dealing With Others

Besides maintaining a good relationship with themselves, coaches must handle athletes, assistant coaches, parents, and administrators. Head coaches should remember to delegate tasks to assistant coaches who are there to help coordinate practice.

Coaches' relationships with the athletes that comprise the team are important. Coaches should allow the athletes to be a part of the goal-setting process and should support their athletes. However, athletes need to make their own decisions. Coaches should make as much use as possible of parents and administrators in their programs. For instance, invite administrators to the games and discuss the progress of the team.

Coaching can be both rewarding and challenging. The joys, thrills, and excitement of coaching are wonderful, if coaches can develop the skills to avoid burnout. When coaches learn to handle the pressures involved in the profession there will probably be fewer coaches who burnout and more coaches who remain in the profession.

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Strategies to Reduce Coaching Burnout

Physical Health

- ✓ Exercise regularly
- ✓ Get involved in leisure activities
- ✓ Pay close attention to nutrition—eat for health
- ✓ Get enough rest
- ✓ Practice relaxation skills
- ✓ Avoid drugs, alcohol, and caffeine

Mental/Emotional Health

e good to yourself—take vacations and weekends off

Develop support groups

Express frustration

Seek professional advice

Further your own education

Know when to say no

Cultivate friendships, develop some new ones

Develop time management skills

Find creative solutions to problems

Have a sense of humor

Dealing With Yourself

- ✓ Attend coaching clinics, conferences, and workshops to stay informed
- ✓ Get involved in coaching associations
- ✓ Try something new—change old methods
- ✓ Remember—success is not measured only by win-loss records
- ✓ Focus on positive aspects of coaching
- ✓ Set priorities and stick with them
- ✓ Leave coaching headaches on the field

Dealing With Others

- ✓ Delegate responsibility to assistant coaches
- ✓ Structure practices and games so they are rewarding for athletes
- ✓ Set realistic, flexible goals for the team
- ✓ Accept some, but not total, responsibility for athletes' well being
- ✓ Enlist the aid of counselors, parents, and volunteers to support the athletes
- ✓ Develop opportunities for the athletes and others to evaluate your effectiveness

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• Judd, Michael R., Donna L. Pastore, and Betty Kelly, "Reduce and Prevent Coaching Burnout." From Strategies (Vol 6, No 6, 1993), 15-17.

Youth Sports: Parental Concerns

Hal J. Walker

It is well documented in the research literature that a variety of factors influence the amount and quality of play and physical activity a young child experiences (Coakley, 1990; Smith, Smoll, and Smith, 1989; Gill, Gross and Huddleston, 1983; Ellis & Scholtz, 1978; Martens, 1978; Orlick & Botterhill, 1975). Stressed in this research is the significant role of parents regarding the enjoyment, success, and continuation of play and physical activity, regardless of the movement potential of the child.

Bandura (1965), explains that learning is encouraged by exposure to models who perform patterns of behavior that may be imitated by others, whether these behaviors are intentional or not. In the early and middle childhood years, the effects of parental influence on a child's play and physical activity habits should not be underestimated.

According to Gill, Gross, and Huddleston (1983), boys and girls rate improving skills, learning new skills, having fun, attaining physical fitness, and being challenged, as the most important factors in youth sport participation. Given that this prior statement is true, why do the parents involved in youth sport programs, control and guide all activities, and focus so consistently on winning? Even when the rules are developed to meet the needs of the children, many coaches, parents, and spectators display absolutely no regard for these guidelines. If rules are not being followed, and all adult involvement is not correlated to the purpose of the activity, then we need to make the necessary changes. Popular, yet inappropriate adult leadership should not be allowed to govern youth sport activities.

Children tend to seek and require the approval of adults in many of their daily activities (Fowler, 1981; Cratty, 1983). Many of the parental reactions to children's yearning for attention in sport or fitness activities, however, are less than ideal. Yablonsky & Brower (1979) analyzed organized youth sport leagues in California, and stated that parents often acted in ways that could be viewed as damaging or detrimental to relationships with their children. Coakley (1990) furthers this notion by stating: "The most potentially destructive situation occurs when children believe that their relationships with one or both parents depends on continued involvement in sport or on the quality of their performance as athletes" (p. 99). This being the case, there exists a need to closely examine the influence of parents in this environment.

Sport Exposure

Approximately 25 million, six to sixteen year old Americans take part in organized sports according to Leonard (1988). Roberts (1986), however, stated that as many as 80% of all youth sport participants drop out of competitive sport leagues by the age of twelve. Although it is difficult to track the reasons for such a large attrition rate, it is safe to generalize that participation in organized sports are not entirely beneficial for all participants.

Very often exposure to competitive sports is the sole manner in which parents involve their child in physical activity. Involvement should come through exposure certainly, however, support and consistent family involvement, whether the forum is an organized sport or fitness activity, is essential to holistic success for the child.

The fostering of frequent success is also important during early youth sport experiences. Youth sport leagues are being organized at earlier and earlier ages. In these early years the child is trying to learn new skills, have fun, im-

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press his/her peers (or at a minimum, perform in a similar fashion), and please parents and coaches all at the same time. Certainly all children cannot expect to be successful in terms of competitive involvement, however, recent trends indicate a need for alternatives to allow for more rewarding and positive play, fitness, and movement experiences.

Beyond the development of self concept during these early years of sport involvement, a lifelong dislike for sport, fitness, and physical activity can easily be initiated. Competency with basic motor skills should be developed during these early years and a child threatened by his/her environment can only serve to deter life long enjoyment and participation (Fowler, 1981; Cratty, 1983). Pease and Anderson (1986) found evidence that lasting attitudes toward competition in sport are often formed prior to age ten.

The importance of a child performing competently in front of adults for positive self esteem enhancement is critical. Children tend to be honest and often cruel in their vocal comments and expressions about others' actions, yet highly sensitive to criticism (Pease and Anderson, 1986). Poor physical abilities in a non-nuturing environment can result in ridicule, harassment and an aversion for activity that could last a lifetime.

Parental Involvement

Parents in many cases have been conditioned to view their role as a taxi cab driver, chauffer, or that of registrar; ensuring that their child is signed up for the myriad of available leagues, camps, or clinics. The parents in many cases, expect their child to grow and enjoy this "hodgepodge" of experiences with little or no familial guidance. This exposure isolated from family support, encouragement, and active involvement, often results in failure for the child and a resulting dislike for sport and/or physical activity. With society commonly stressing the importance of conventional success (winning), exposure alone may not always be a positive experience.

There is a high relationship in the ability to perform motor tasks among parents and children (Kay, Felker and Varoz (1972); Howes (1971); and Cratty (1959, 1960). Children who performed at exceptional levels of motor skill competency, tended to have parents who were keenly interested and active in physical fitness activities and sports. Parents must take an "active" role in the encouragement of healthy lifestyles for their children. Simply preaching the benefits will not work, as evidenced by the current fitness levels of North American children.

Parents often use verbal comments to convey the important role of physical fitness in growth and development as well as health throughout these early years. The actual physical involvement of the parent is frequently overlooked when investigating a lack of participation in sport, physical activity and physical fitness in today's youth. Clearly children would be more enthused to participate if their parents were actively involved and enjoying themselves, as well as extolling the virtues of health and physical activity.

Parental attitudes consisting of winning being the primary goal of participation, in many ways diminishes the child's opportunity for fun (Orlick, 1980). This then indicates that the "success" of the child's involvement would elicit the result, or: winning = success and losing = failure. What concerns this author, is that negative experiences often outweigh positive ones, with the focus being product oriented or winning. All children, especially those during their highly developmental years, should be participating in play and physical activity for fun, skill development, and learning an appreciation for sportsmanlike conduct, regardless of the apparent usefulness it may serve others. What society needs to realize, with specific reference to parents, is that play in and of itself does serve a valuable function in the total development of the child (Cass, 1971; Ellis, 1973). Again, parents need to remember the significance of their actions and the impact these actions may have on their children.

According to Chissom (1978), and Guttman

(1988), youth sport programs simply do not provide a positive moral environment for most children. Parents therefore, must be actively involved, in and out of the home, to ensure that the moral development of their child is being nurtured in an appropriate fashion. One should not automatically assume that good sportsmanship and fair play are being encouraged on the playing field, nor should this task be delegated to a coach in a youth sport league.

According to Walker (1982), following an eight-week "Family, Fun, & Fitness" program, parental responses to the family activities were very positive. Parents conveyed a clear intent to continue involvement in regular physical activity with their children following the program. In addition parents also perceived themselves to be much more understanding about the needs and desires of their children. As the activity sessions progressed, parents reported that they slowly relinquished control and that their children appeared to consistently gain confidence and take more of a leadership role in activity choices for the entire family. Not only did this allow for positive, child-centered activities, but the appearance of greater satisfaction for all participants.

The ability of parents to expose their children to various activities and experiences in the environment will vary from family to family, however, this exposure plays a critical role in the development of the child. Past experiences, ethnicity, geography, climate, economics, and activity levels of the parents, all appear to be significant factors influencing the provision of broad play and physical activity experiences for children. The parental role should be to assist, by involvement, in the development of the right conditions for interest to grow, and then allow for the creative exploration and repetition of the newly developed skills to flourish (Staniford, 1982).

Modeling

Miller and Dollard (1941), Kounin and Gump (1961), Bandura, Ross and Ross (1963), and Fisher (1966) from their research examining the conditions under which children imitate and acquire complex verbal and behavioral responses, have clearly demonstrated that modeling or observational learning is a very potent, if not the most potent learning experience. According to Figler and Whitaker (1991), children model themselves after adults, and in particular, well known or successful athletes.

Martens (1978), commented regarding the beliefs of former professional football players, Frank Gifford and Bart Starr, stating:

> "They feel that kids are not as mentally tough, as committed to excellence, as determined to win; that they lack pride, loyalty and dedication; and that they are unwilling to make self-sacrifices. Indeed, Gifford and Starr lament that too many children merely want to play for FUN!" (p. 13)

As expressed by the above example, one of the largest issues that hinder the continuation and enjoyment of play and physical activity in young children, is the importance that adults and role models in our society place on competition and winning. Parents often feel that they must challenge and "drive" their child, if they want them to excel in sport. Ellis (1973) explains that children strive to be like adults without coercion or force from parents or other adult role models. Parents should allow children to have the opportunity to grow at their own pace, and refrain from imposing adult standards or adult rules too early. According to Smith, Smoll, & Smith (1989), parents often force their own personal competitive qualities onto their children, regardless of the children's acceptance or ability. This situation often results in failure and a consequent dislike for something that often comes readily and so natural for the child . . . movement.

Orlick & Botterhill (1975) state that learning in children is dependent on parental examples as well as how parents respond to the actions of their children. They go further to state that values, attitudes and behaviors are also learned from parents. Orlick & Botterhill (1975) through their study of the influence of parents

on the actions and behavior of young children, state that parents are the most important behavior models, particularly during their early years.

It is nice to believe that all parents attempt to provide the most positive environment possible for the growth and physical development of their children. unfortunately, this is an altruistic statement. Clearly this end is not achieved by enrolling the child in countless activities in the community, nor is it achieved by forcing the child to be involved in at least one sport at all times. This task can only be achieved by being a good role model and exposing the child to positive movement, play, and fitness experiences, with concerned, qualified, and caring support groups at every level of the youth sport process. All this must occur before any form of participation in competitive sport is allowed. Past professional football star, Larry Csonka, echoes this comment following his observation of the coaches of his sons youth sport football team. Larry felt that the coaches were so poorly qualified that he withdrew his sons from the team (Martens, 1978). Sport involvement can be and is often a very positive experience, however, this success does not "occur" automatically and parents need to be more aware of this fact.

Play

The term "play" is often viewed by parents, and society at large, as time spent in a non-functional manner. Parents typically tell their children to "run away and play and don't bother me," or "go find something to play with." When a child is given instruction in this manner, the parent is presenting an underlying message that the task the child is performing is frivolous and unimportant. This idea would then serve as negative reinforcement regarding the relevance of play to the child. If a child is continuously deflated and ridiculed for performing tasks that appear frivolous, yet are intrinsically pleasing, these actions may eventually cease and the innovative, creative play of the child could halt. Children should be positively reinforced for emulating behaviors that illustrate individuality, creativity, problem solving, or fitness activities (i.e. heart rate elevation), for this is what constitutes play to the young child.

A common occurrence of a child at play from infancy to three years of age, is noted by the repetition of a simple task that he/she recently learned or finds enjoyable (Hurlock, 1971). To the parent, this dull repetition appears to be a waste of time. The typical result would find the parent suggesting an alternate activity, such as a household chore or concrete task that would utilize the child's time more productively. This creates a total lack of consideration for the instrinsic value of the activity to the child. Positive reinforcement is also less likely to occur when the child is involved in one of these intrinsically pleasing tasks. These factors seem to indicate to the child that play is not serving a useful purpose, so the cessation of these playful instincts may naturally occur.

Hurlock (1971), characterizes play for children three to six years of age as more complex and imaginative. Hurlock continues to state that children at this age perform "limit testing," (testing the limits of their capabilities), much more so than during the first three years. Hurlock also mentions that children at this age have very little concern for games of an organized nature. Furthermore, between the ages of six and eleven, children enjoy team games with low levels of organization and moderate levels of competition.

Children in most cases challenge their abilities in every day life, without the help of adults imposing tasks for this same reason (Smith, Smoll & Smith, 1989). Parents should understand the pressing importance of play in the holistic development of the child and as a result, provide encouragement and support for these actions. Criticism and ridicule send a clear message to the child that their actions are unimportant and should cease.

Family Environment

The family environment raises numerous questions as to its impact on the growth and eventual involvement of the child in regular

play and physical fitness activities. Apart from the obvious influence of the parents as models for the child, the total family atmosphere can elicit profound influence regarding the involvement of the child in regular physical activity. Orlick (1980), has indicated that an "average" child from a positive family sport environment will usually be an early participant in sport, regardless of other factors. This clearly denotes the importance of a positive attitude towards physical activity, as opposed to the reluctant parent complaining about driving his/her child to a 6 a.m. hockey practice.

Hendry (1979), has observed families with twins, to investigate activity levels for each child. From this research, Hendry indicated that positive, physically active involvement occurred regardless of vast differences in height, weight, age, and physical and emotional maturity of the children. This clearly expresses the importance of a positive family atmosphere that promotes health and physical fitness.

Parents, often without realization, tend to thwart the creativity and individuality of young children. A child's environment should stress effort and attempts, and place the focus on fun and the process. In this manner, the child will remain motivated and learn to appreciate performance as well as personal development, and not solely focus on outcomes.

Growth and Development

It is safe to assume that all parents are at least partially aware of the major developmental milestones that young children experience. This awareness however, underestimates the critical importance of this period on the future abilities of the child. Through play the child is learning about the environment, his/her capabilities, and limitations. These early experiences are critical to the total development of the child.

Sparkman and Carmichael (1973) indicate that a child has acquired approximately fifty percent of everything ever learned by four years of age. By the sixth year the child is capable of executing all of the fundamental movement patterns. Clearly the learning potential of the child during these significant years can be related to the parent(s) and their influence regarding this development. Mussen, Conger and Kagan (1979) explain that maturity does limit the child's ability in performing certain motor skills at specific stages of growth, however, the acquisition of specific skills can be hastened by experience.

Parents should willingly take the initiative to provide positive, and physically active experiences that children need in order to grow and mature as healthy individuals and proficient movers. Providing the fees at the appropriate time and arranging "car pools" is clearly not sufficient. Children need the contact, support, and guidance that only parents can provide in the early stages of skill exposure and development.

Readiness

Readiness is an issue that parents should be aware of when dealing with the psycho-motor development of young children. Research shows that although development among similar aged children tends to be sequential in nature, rarely do the abilities of one child match those of another when isolating comparisons. Regardless of nurturing, genetic influence, or encouragement, the development of children is at best unpredictable (Corbin, 1980). Critical in understanding this concept, is that children will perform a skill when they reach a specific level of development that allows them to, and when they are exposed in a positive manner to the skill they are attempting. As a result, parents can train their children endlessly to walk, however, they will walk only when they are physiologically ready. With constant exposure the child will walk at the earliest possible time, which is ideal, however the child will not walk until he/she is ready. If parents are aware of the general patterns of development, the appropriate skills can be taught when the child is ready or nearing this readiness stage.

Ontogenetic vs. Phylogenetic Skills

Although many of the skills and abilities that children develop as they mature may appear with varied levels of practice or effort, there are distinct differences between certain skills they perform. Some skills seem to surface with very little effort, while others seem to take an eternity, even with careful guidance and instruction by significant others. Parents and youth sport coaches often get frustrated when a child or team cannot learn, what appears to them to be, very simple strategy or positional play. Although ability is certainly a factor, it is one that is too often used to explain either an outstanding or an inadequate skill performance.

Physical behaviors of children that occur without influence of outside agencies are known as phylogenetic skills. Examples include: "grasping, reaching, crawling, creeping, walking, and running" (Corbin, 1980, p. 16). Regardless of ability, instruction, or training, these skills are learned by healthy children and are typically displayed in a sequential pattern, however the age at which many basic skills are displayed can vary from one child to the next.

Ontogenetic skills are behaviors exhibited only if learned or taught to the individual. Ontogenetic skills, including throwing, striking objects with a racket, and shooting or dribbling a basketball are skills that will not develop without proper information to perform the skill or an effective model from which to learn. Youth sport leagues move so quickly through the skill development stage that children too often fail to learn mature, basic skills and are therefore unable to perform the skills required for success in later competitive leagues. The added pressure of competition further inhibits this process. The result can rarely be anything but futility, frustration, and failure.

If one observes a group of adults playing badminton at a picnic, this example is often clear. Very seldom does one see full use of the trunk, shoulder, arm or wrist in striking the shuttlecock. An observer typically sees jerky movements which are biomechanically incorrect. This is because these individuals never learned the proper form and development of this ontogenetic skill. Children must be taught correct skills when young so that success in many forms will naturally evolve.

Each child has mechanical strengths and weaknesses along the growth continuum that influence sport involvement and abilities in positive and negative ways. These strengths and weaknesses should not be portrayed as stereotypes that are damaging in any way to either sex. There should be absolutely no tolerance for comments such as: "He throws like a girl," or "She acts like a boy." Behavior or throwing abilities are not sex specific. Skills are either biomechanically correct (mature), or incorrect (immature). All children need to be positively reinforced, as well as taught the basic locomotor and non-locomotor skills in a correct manner. Only then will these skills empower them to succeed in sport, fitness, and leisure activities throughout their lifetime.

Effects of Television

The effects of television on a child's development has been a major societal concern since television's inception more than forty years ago. The focus today seems to have migrated away from the passive inactivity that television viewing encourages and is focused on the appropriateness of a majority of the programming content. The major issue should remain focused on the inappropriateness of excessive television viewing, and the content issue would become moot. If the child is playing or physically active with no interest in sitting idle, staring at a picture tube, content of programming is a non-issue.

According to the literature, parents are the main influence regarding the amount of television a young child watches, particularly during the early years. According to Mussen, Conger & Kagan (1979), American children spend more time watching television than any activity other than sleep. Prior to adolescence each child has watched over 15,000 hours of television. Is it any wonder the health of our society is in such a state of decay? Activity becomes much more difficult

to consistently acquire as we age and pursue careers and responsibilities that relate to family involvement. We must however, make fitness a priority.

A variety of viewpoints presently exist regarding the effects or influence of television viewing on the development of today's youth. Argument tends to focus on content issues however, a clear result of television viewing is the fact that this time is spent inactive or sedentary. With the current fitness, health, and cardiovascular concerns in society, much less time should be spent idle during these formative years. Children in natural settings are known to spend a great deal more time active (Orlick, 1980). The effects of this lack of activity should be of grave concern to the parents. In addition it is recommended that viewing hours be controlled, as well as carefully monitored.

Societal Issues

Various issues can influence the "normal" growth and socialization of the young child. It is commonly observed that "over-fat" children often come from families with over-fat parents and active children from families with active parents. Recent societal thrusts tend to migrate away from the importance of physical activity for fun. Prestige in today's society often stems from levels of leisure that one attains. The more holidays one takes; shorter or more flexible work weeks; the car a family drives; or the size and quality of the residence within which one lives are all prestige factors that seem to take precedence over a healthy and physically active lifestyle. The fitness boom that was envisioned in the 1980's due to flex time and shorter work weeks has simply not materialized. People are spending more time at work trying to fight economic woes, therefore physical activity is, again, taking a rear seat.

Society impacts the development of children as clearly as parents do. Levy (1978) explains that parental influence is significant, since society consistently presents more and more non-working play models. Society must, therefore, present a more positive attitude towards play and physical activity. What better place is there for this behavior to originate, than within the family environment?

Closing Comments

With the poor status of health and physical fitness levels of children today, along with the failure of most states to mandate daily physical education classes, parents must take a more active role in the early movement experiences of their children. Many school systems are not only unable to provide adequate frequency of physical education, but recent economic cuts are once again forcing them to analyze their programs. Physical education, along with art and music professionals are commonly being considered for replacement by teachers certified in other, totally unrelated academic areas. Not only are these fill-in professionals unqualified to instruct in these disciplines, the statement "anyone can teach gym, music, or art class" becomes more actively accepted. Obviously we are not doing enough, so how can we justify doing less? Are our children not worth it?

Parents and all other concerned individuals must become more proactive in maintaining and expanding physical education classes taught by qualified physical education professionals. A public concern for daily physical education must be supported by the parents of children in all schools. The best way to accomplish this is by raising our children in healthy, positive, fun-filled, successful, and active environments, where everyone wins. The time for preaching is over; we need to live the lifestyle we vocalize as important. Only then will today's youth develop with an understanding of the importance of a healthy and active lifestyle and be fortunate enough to enjoy one.

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Parents and Coaches: Expectations, Attitudes and Communication

C. Craig Stewart

During a soccer a match, a parent's voice booms from the stands, "Come on ref' get your head out of your a--." The voice is familiar, and everyone, including the players, knows who the loud individual is.

Midway through a season, a defending state champion high school coach contemplates resigning because of phone calls from irate parents whose child either did not play enough . . . or the right position . . . or did not make the team at all.

A seasoned athletic director opens his speech to a college coaching class in the following manner. "The biggest problem you will face as a coach is parents."

Unfortunately, each of these scenarios is true and neither uncommon nor exaggerated. Parental behaviors are usually a reflection of their expectations of coaches and players (their children) in an athletic context. Those behaviors are also both significant and crucial in the triangular relationship between parents, players and coaches. A positive parent/coach relationship is vital for the creation and preservation of beneficial sport experiences for players. A negative relationship has a detrimental effect on all participants; parents lose interest in their child's sport, become apathetic or even hostile, consequently increasing the tension in an already stressful situation. The tension increases as players find themselves embroiled in a conflict between adults who play very important roles in their lives. To prevent these negative effects, coaches need to develop athletic environments which include the parents and the players. The maintenance of positive athletic environments is essential to all who believe that participation in sport can contribute to the growth and development of young people. A positive relationship between coaches and parents is one factor in a healthy, athletic environment. One of the first steps in the establishment of positive parent/coach relationships is an understanding by both groups of the goals and objectives of the other. The purpose of this study was to determine how parents of high school athletes ranked specific coaching characteristics. If coaches were aware of what characteristics parents valued, that awareness would serve as an initial step in the development and maintenance of stronger coach/parent relationships. Improved relationships would allow both groups to work together for the benefit of the young athlete. In addition, better coach/parent relationships could reduce the amount of stress for coaches and add to parental involvement, understanding and cooperation in the athletic domain. The purpose of this study was to initiate the first step in developing better relationships between parents and coaches. That first step is the determination of which coaching characteristics parents feel are most important.

Review of Related Literature

Parents and coaches represent the two most influential adult groups in the lives of young athletes (Hopper & Jeffries, 1990). Yet, ironically, the relationship between coach and parents is often either overlooked (Hopper & Jef-

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fries, 1990), ignored (Hellstadt, 1987) or fraught with misunderstanding (Sisley, Capel & Desertrain, 1987). Parents are usually the primary role models for a child's entrance into sports. Typically, they arrange a child's first encounter with sports, and it is parental involvement (or lack of it) that shapes the direction of the athletes' sport participation through childhood and into adolescence (McPherson, 1978; Iso-Ahola & Hatfield, 1986). Once involvement is initiated, the team of parents and coaches provides much of the motivation needed to continue participation. This three way relationship between coach, player and parents has been termed the "athletic triangle" (Smoll, 1986). However, without effective communication, the two, more forceful "sides of the triangle," parents and coaches, often come into conflict placing the "third side" . . . the player, in the middle. Communication problems are frequently the source of discord between parents and coaches. Those problems can occur when parents and coaches fail to verbalize and agree upon the goals of an athletic program (Hopper & Jeffries, 1990), and when coaches" do not possess the skills needed to interact with parents or they blatantly refuse to recognize communication with parents as an important professional responsibility (Hellstedt, 1987). Regardless of the reasons, poor communication between parents and coaches threatens the athletic program and when the program is threatened, all participants suffer.

The concept of an athletic triangle was expanded by Hellstedt (1987) in his discussion of the types of parents encountered by coaches. He recognized that good relationships with parents would increase the probability of a successful athletic program, while poor relationships could destroy it. Coaches do not just coach individual athletes or teams, but are involved in a whole family process. Failure to recognize and accept that total family involvement would virtually insure increased problems for the coach and the program. To minimize the chances for conflict, coaches should learn to identify and relate to the different types of parents they will encounter in various families.

B.L. Sisley, S.A. Capel and G. D. Desertrain (1987) acknowledged that conflict between parents and coaches can occur when there are different perceptions of expected performances and behaviors or when the values advocated by the two groups are not in concordance. Proactive planning, that is, the recognition of the causes of coach/parent conflict and the development of specific strategies would assist the coach in preventing or countering conflicts when they occur.

However, many coaches shun or, at best, reluctantly tolerate parental involvement with their teams (Hopper & Jeffries, 1990). The reluctance to interact openly with parents may be the result of poor coach preparation, limited communication skills or just a failure to accept the need for good relations. Ironically, coaches and parents mutually need a strong interrelationship. Parents need to be informed as to the goals of the program, the honest evaluation of their child's athletic ability and be assisted in maintaining a proper perspective in evaluating the success of both their child and the program. Coaches need parents to support the athletic program, reinforce the expectations of the coach and provide feedback on the total development of the child/athlete in their life away from sport. Coach/parent environments which reflect "open - honest" communication and mutual respect will contribute a great deal to a positive athletic experience for all sides of the "triangle."

A relationship which is neither open, nor honest, has negative effects on the coach, the program and all members of the athletic family. The consequences can be as innocuous as reduced parental interest in the program, a total loss of parental support of the athlete's participation, or as harmful as parents actively campaigning for the dismissal of the coach. Whatever the effect, coaches should attempt to prevent the "clashes" by establishing an athletic environment which includes the parent. That inclusion will improve relationships, increase support for the program and, hopefully, reduce the chance of additional stress on the coach.

Stress in coaching is inherent (Kelly & Gill, 1993) and has numerous origins. When stress is

either underestimated, disregarded or ignored, it will eventually cause "burnout." "Burnout" occurs when a coach attempts to cope with the demands of a profession without adequate resources or support over an extended period of time. The discrepancy between demands and resources may be authentic or imaginary, but the results are no less real. Coaches quit the profession. They encounter stresses which are rarely experienced in other careers. They are held exclusively accountable for the results of their teams whose performances are viewed in one of the most spontaneous and unpredictable environments, sport. The results of their teams efforts are also highly publicized and critiqued by many groups who have both professional and personal interests in the players and programs (Coakley, 1990). Parents, of course, are one of the most interested and influential groups involved in the public examination and evaluation of coaches.

Parents are a distinctive origin of stress in coaching (Coakley, 1990; Lackey, 1986; 1975). Most are totally subjective in regard to their children. Some expect coaches to give their children specialized or individualized treatment, allowing them to play a certain amount of time or in specific positions regardless of ability WHILE, simultaneously, developing or maintaining competitive teams (Coakley, 1990). Those unwarranted expectations are not restricted to the younger, less competitive sport arenas, but have been experienced by coaches throughout all levels of play. In a national coaches workshop, following his team's win of an international championship, a coach related that he was approached by two sets of parents as he was leaving the field after the victory. While the parents were happy with the world championship, they admonished him for the small amount of playing time their "children," both who were over eighteen years of age, had received in the tournament.

Parents were identified second only to boosters/patrons/or fans in their exertion of pressure and stress on coaches (Lackey, 1986). Earlier, Lackey (1975) had found poor public relations between coaches and the community, including parents, as the primary cause of dismissals of high school coaches in Nebraska. Certainly, the loss of a job, or the mere threat, is one of the most serious consequences of poor parent/coach relationships. Cilo (1990) was even more candid in the evaluation of parental behaviors as a cause of stress and, eventually, coaching "burnout." He stated that "meddlesome parents with grandiose ideas of his or her son or daughter's ability are one of the primary reasons for coaches leaving the profession. For some parents, just playing and competing is not enough . . .their kids have to play a certain amount of minutes and the team has to win" (pp. 4 & 5).

Most coaches recognize that parents are going to create stress. Finding the answers to the problem, however, is not easy. The success of the program and the coach's lob can depend on addressing important issues and establishing rapport with parents. The solutions might require new approaches to old problems, including a redefinition of the responsibilities of the coach. Coaches need to understand the types of parents they will be encounter and the roles those parents play in the athlete's life. Finally, a coach should determine what parents expect from their child's athletic experience. While those procedures require additional time in an already busy schedule, the knowledge gained would surely be worth the effort necessary to obtain it.

As the primary adults in athletes" lives, parents are the most unique and influential group with whom a coach must coexist. However, parents are not identical in their interest or involvement in their children's sport. Hellstadt (1987) examined that difference and presented a continuum of involvement ranging from the "under involved" to the "over involved" parent. The "under involved" parent rarely attended practices or games, never volunteered to assist in team management and provided only the minimal amount of financial, emotional or physical support for the athlete. The over involved" parent represented the biggest challenge to the coach. This parent not only attended every

practice and game, but felt free to act as an additional coach in either situation. Unfortunately, this parent behavior was not limited to coaching his/her child, but including other athletes as well. Further unwanted behaviors were the harassment of referees, opposing coaches and/or their players. Some parents have even come on to the field of play during or after a match to confront anyone with whom they disagree. "Over involved" parents appear to have personal needs which are being fulfilled by their children's participation in athletics. They receive gratification and/or prestige, or achieve vicarious experiences from their children's involvement in sport. In addition, many envision their children as attaining higher educational opportunities from or having future professional careers in the sports they play (McPherson, 1978). The expectations and behaviors of the "over involved" parent can become so aberrant that it will have serious negative effects on the coach, the athletic program and the player. Those parents must be identified early and an unlimited and coordinated effort be made by coaches and administrators to eliminate or seriously modify their inappropriate behaviors.

The parent/coach partnership is irrevocable. The understanding of the dynamics involved in that partnership can result in an improved atmosphere for all members of the athletic environment. Parents and coaches must coexist, for athletic programs mandate parent/coach interaction. The success of the program will be determined by the nature of the coexistence between these adults who are united by their concern for the athlete. The quality of the coexistence can be improved if parents and coaches share their expectations of sport in general, and each other, specifically.

Methodology:

A list of parents of high school athletes was provided by an athletic director from a high school of about twelve hundred students in a community of about 25,000. The high school's athletic program had been highly ranked the previous year in the "all sports competition" among the largest high schools in the state. Questionnaires which attempted to determine how parents felt about several aspects of their children's participation in sports were sent to approximately two hundred families. Ten days after mailing, follow up postcards were sent to all the families requesting completion of the survey. Ninety seven (97) families responded. The responses were from eighty (80) fathers and eighty-seven (87) mothers. Both parents responded to a general question which determined what sports they had played in their youth and their highest level (elementary, junior high, high school, college or professional) of participation. The parents were also asked to disclose the number of children in their family, the children's ages and the sports and levels the children had played.

Coaching Characteristics:

Each parent was asked to rank the importance of ten commonly identified characteristics of coaches (Seefeldt, V. & Brown, E., 1991; Martens, R., 1990) of their children. The statement was;

Please rank from 10 (highest) to 1 (lowest) the MOST important characteristics for a coach of your child (children).

1. **knowledge of the skills of the sport;**
2. **knowledge of the rules of the sport;**
3. **commitment to winning;**
4. **experience as a player of the sport coached;**
5. **commitment to the development of sportsmanship;**
6. **knowledge of prevention, care and rehabilitation of injuries;**
7. **the ability to teach well;**
8. **commitment to having their players enjoy their sport;**
9. **fairness and honesty in dealing with athletes;**
10. **providing an experience which will improve your child's chances of playing at a higher level (varsity, college, Olympics, professional).**

The purposes of this procedure was to determine; 1) how parents would rank coaching characteristics; and 2) of the families from which both parents responded, would mother and fa-

thers agree with each other as to the ranking of coaching characteristics. The hypotheses were; 1) there would be a significant difference between the value placed on the coaching characteristics; and 2) there would be a difference between mothers and fathers on how coaching characteristics were ranked. It was felt that knowledge of how parents ranked coaching characteristics would assist coaches in establishing positive relationships with them. In addition, if parents did not agree among themselves as to the most important characteristics of coaches, that disagreement could serve as a serious source of conflict in the parent/coach relationship. Knowledge of any difference between mothers" and fathers" rankings would further assist coaches in understanding this dynamic situation.

Results:

Demographics of parents and children:

Eighty (80) men responded to the questionnaire. Their ages ranged from 35 to 65 years of age, with an average of 46.17 years. Only one indicated that he had not participated in any sports. The four sports most participated in by men were basketball (85%), football (73%), baseball (70%) and track and field (53%). The eighty seven (87) women who responded ranged in age from 35 to 59 years of age, with an average of 44.1 years. Among the women, nineteen (25%) conveyed that they had not participated in any sports. Many wrote that sports were not available to females in their schools. The most popular sports among those who had participated were basketball (37%), volleyball (36%), softball (30%) and track and field (29%). Twenty-one (30%) of the fathers had played sports in college, while only 2 mothers (2.5%) had played beyond high school.

The respondents represented families of two hundred and fifty-seven (257) children. The average age of the boys was 16.9 years and the girls was 16.4 years. Only one of the 126 male children was reported as having not participated in any sports. The four most popular sports of males were basketball (72%), baseball (67%), soccer (62%), and football (55%). Only five percent (7/131) of the female children were reported as having never participated in sports. The sports most participated in by females were basketball (62%) followed by softball, volleyball and soccer, all at 50%. There were eleven males and six females who had played sports in college.

The initial rankings of coaching characteristics are presented in Table 1. The adjusted score and ranking represents only those parents who followed instructions by not duplicating rankings of characteristics. Three parents did not complete this section at all. The score and rankings of fathers and mothers were separated and are presented in Table 2.

Non-parametric statistical analyses were used to determine if there were differences between how the coaching characteristics were ranked. Utilization of a Friedman analysis of ranks revealed a significant ($Chi^2 = 257.53$; $p < .05$) difference among the ten characteristics. Because significant results from a Friedman does not reveal which groups are significantly different, a Wilcoxon matched-pairs signed-ranks test was performed for multiple comparisons of individual characteristics (Huck, Cormier & Bounds, 1974; Siegel & Castellan, 1988) The multiple comparisons allowed the author to identify which coaching characteristics were ranked differently from others and arrange them into high, middle and low groups (Table 3). The statistical analyses were completed on only the adjusted rankings.

Parents clearly identified which characteristics were most important to them. However, there was no significant difference between fathers and mothers on their ranking of coaching characteristics.

Discussion

Parents participating in this study were asked to rank ten (10) characteristics of coaches of their children. After an overall difference between characteristics was determined, multiple comparisons of mean ranks allowed those characteristics which were ranked significantly dif-

Table 1: Scores and Rankings of Coach Characteristics by All Parents, Fathers & Mothers:

	Parents (n=131)		Fathers (n=62)		Mothers (n=69)	
	x	rank	x	rank	x	rank
COACHING CHARACTERISTIC						
1. knowledge of the skills:	5.82	(5th)	5.54	(5th)	6.09	(5th)
2. knowledge of the rules:	5.16	(6th)	4.96	(7th)	5.40	(6th)
3. commitment to winning:	3.42	(10th)	3.62	(10th)	3.22	(10th)
4. experience as a player:	3.96	(8th)	4.35	(8th)	3.64	(9th)
5. development of sportsmanship:	6.85	(3rd)	6.87	(3rd)	6.87	(3rd)
6. prevent., care and rehab. of injuries:	4.99	(7th)	5.17	(6th)	4.84	(7th)
7. the ability to teach well:	6.35	(4th)	6.06	(4th)	6.66	(4th)
8. having their players enjoy their sport:	7.30	(1st)	7.32	(1st)	7.29	(1st)
9. fair. and honesty in dealing with athletes:	7.24	(2nd)	7.24	(2nd)	7.25	(2nd)
10. improve chances of play. at a hi. levels	3.91	(9th)	4.01	(9th)	3.81	(8th)

ferent to be separated into groups of HIGH, MIDDLE AND LOW importance. Mothers" and fathers" were compared to determine if they ranked coaching characteristics differently, however, they did not.

Parents ranked 1) fairness and honesty in dealing with athletes; 2) commitment to having athletes enjoy the sport and 3) the development of sportsmanship as the three most important coaching characteristics. These attributes reflect a component of sport which, in some circles, is considered to be antiquated (Beller & Stoil, 1993). While it would seem that characteristics such as **honesty, fairness, enjoyment and sportsmanship** should be commonplace, in sport, there are those who view these qualities as either extinct, overly naive or found only at the younger levels of sports. It was gratifying to find that a group of parents who not only had numerous children playing sports at levels from elementary to college levels, but who themselves had extensive experience as players, would value these coaching characteristics above other more traditional characteristics. These findings support the unpublished work of Robertson (reported in Anshel; 1993) that there has been improvement in some of the negative behaviors and attitudes of parents in respect to sports and their children. That improvement was reflected by a decline among parents who promoted "winning at any cost" as the primary role of sport and a decrease in children who cited negative reasons (over emphasis on winning) for dropping out of sports from 45% in 1980 to 30% in 1990.

In this study, the more traditional characteristics . . . 1) commitment to winning; 2) improving a player's chance to play at a higher level and 3) experience as a player, were ranked lowest by the parents. **Winning** and **Improved**

Table 2: Parents' Rankings for High, Middle and Low Groupings of Characteristics of Coaches of Their Children

HIGH GROUP

9. fairness and honesty in dealing with athletes
8. having their players enjoy their sport
5. development of sportsmanship

MIDDLE GROUP

7. the ability to teach well
1. knowledge of the skills
2. knowledge of the rules
6. prevention, care and rehabilitation of injuries

LOW GROUP

10. improve chances of playing at a higher level
4. experience as a player
3. commitment to winning

chances to play at a higher level represent corporeal traits which reflect parents' extrinsic motivations behind their child's participation in sport. These characteristics have become the images which anti-sport critics refer to as examples of an over-emphasis or misdirection in sport today.

Emphasis on winning is certainly one of the reasons cited for some parental stress in coaching. However, it is possible that coaches contribute to their own dilemma. They may be oblivious to what most parents want from sport participation. Perhaps it is the "over involved" parent who is the vocal minority in sport. A minority, who in over emphasizing winning, stifles or "drowns out" the expectations of the majority of parents. Or possibly, in their reluctance or inability to communicate with parents, coaches are unaware of what parents truly expect and value in sport. As a result of that uncertainty, they believe and respond to only the more vocal and obvious parents.

Unfortunately other coaching characteristics, often the very characteristics which led them to the profession originally, can exacerbate misunderstanding and miscommunication with parents. Coaches are, by the very nature of their profession, competitive and ,justifiably, strive for successful programs. Success, however, is too often defined as "wins & losses" by coaches themselves. In a culture which, at least, superficially judges most sports and athletes by the "win - loss' scale, it is understandable that many coaches would equate success with 'winning." Therefore, early in their careers, coaches would associate primarily with parents with a similar philosophy. Based upon this research, that group of parents would be a minority. With time, the coach might accept that the minority represents all parents. That practice, however, is self destructive. If the coach associates only with a small group of parents, the remainder can become disenfranchised from the program. Then when the inevitable occurs, the "minority" turns on the coach because of too few "wins," the very parents who could have come to his/her assistance are the ones who were earlier abandoned. Ironically, even if coaches win regularly, they will eventually be expected to win "big" or be accused of not being "exciting" in the manner of the win, and come under attack from the "win" oriented minority. It is apparent that coaches need to know what parents want in their children's athletic programs. If coaches know, and still choose to nurture the "win-only" minority to the exclusion of the majority of parents who define success differently, then the choice is theirs.

Finally, the playing experience of coaches was not seen as an important characteristic by parents. The findings counter the feelings of many that "all that is needed to coach, is to have played." That myth, ironically, is one which continues to be accepted among many coaches and sport administrators. While it is the ultimate achievement to find a coach who has played the sport and has all the other requisites of the position, it is apparent that having played the sport is a coaching characteristic that is not valued highly by most parents.

Conclusion:

The relationship between coaches and parents is very important. Without the support of parents, no youth sport, team or coach will survive (Anshel, 1993). To develop that relationship, coaches, administrators and parents must work together to identify the common philosophies, goals and objectives of their sport programs. However, they cannot be content with "preaching to the converted."

Sport administrators and coaches need to determine what characteristics parents expect in the coach of their children. That knowledge will assist the administrators and coaches in identifying common areas of support as well as spheres of disagreement. Those spheres of disagreement are the areas from which conflict and misunderstanding can develop. If identified early and every season, they can be addressed by clear communication between all parties and, hopefully, mutual agreement on the objectives of the athletic programs can be reached.

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The Coach-Parent Meeting

By Craig Stewart

The Initial Contact

After an away game, a player's grandmother corners the coach and spends almost half an hour thanking him for what he has done for her grandson. Even though the grandson is not an exceptional player, the grandmother continues to laud the virtues of the coach and the benefits of participation until the coach is thoroughly embarrassed.

The next day in a local bookstore, the same coach encounters the parents of a player who was cut from the team the previous fall. Instead of greeting the coach, the mother turns to her husband and says — loudly enough for the coach to hear — "Let's get out of here. I can't stand to be in the same store as that man."

How can one person represent to entirely different images to parents? More importantly, how can coaches keep parents from developing such contradictory perceptions? The initial coach-parent meeting is one of the most important steps to take to gain some control over how parents perceive you.

Although the prospect of meeting with parents may be intimidating, experienced coaches see this first encounter as an opportunity to establish relationships that will greatly contribute to the success — or failure — of the season. This meeting can establish parental support and create communication networks that last a season or even a career.

One of the first things you should ask yourself is, "What characteristics do parents value in a coach, and what expectations do they have of their child's athletic participation?" Surprisingly, what coaches *think* parents want and what parents actually say they want are not always the same.

Stewart (1996a, 1996b) asked parents of athletes what coaching characteristics they valued. In the first study, participants were parents of high school varsity athletes. They rated the following as the three most important characteristics:

1. the coach's commitment to having players enjoy the experience
2. the coach's fairness and honesty in dealing with athletes
3. the coach's commitment to developing sportsmanship

In the second study, participants were parents of Olympic Development State Select soccer team athletes from 14 western states. They rated the following as the three most important characteristics:

1. the coach's ability to teach well
2. the coach's knowledge of skills
3. the coach's fairness and honesty

In both studies, "commitment to winning" was rated last. Even among the parents of the state select players, "preparing players to play at a higher level" was ranked only 6th out of 10 coaching characteristics.

Knowing what parents want in a coach and in a sport experience can help you establish avenues to communication early in the season. Find out what parents value, and ensure that those values and your goals are discussed thoroughly prior to the start of the season. It is far easier to discuss differences in a classroom than on the sidelines.

In your initial parent-coach meeting, you must address specific issues in order to minimize difficult situations during the season. The first meeting sets the tone for the relationship between coaches and parents throughout the season.

Table 1

What to Discuss at the Parent-Coach Meeting

General Policies

- **Tryouts:** How are they handled. How are players evaluated?
- **Cuts:** This is a very emotional issue that needs in-depth discussion.
- **Who starts, who plays**
- **Varsity/junior varsity:** How are players moved up and down?

What You Expect From Athletes

- **Attendance:** What makes an absence excused or inexcused? Does school policy require school attendance for games, eligibility? Whom should the parent or player contact if absent?
- **Makeups:** Differentiate between being punished for missing practice and making up what the player missed when absent.
- **Punctuality** for meeting, practices, trips, home games, etc.
- **Rules** of the community, school and team.
- **Dress codes** for game day and trips: How to care for uniforms and team equipment.
- **Travel rules.**
- **Behavior** at practices and games

What You Expect From Parents

- **Communication:** Set up a phone tree. Discuss how parents should communicate with you.
- **Game behavior:** What does positive support mean?
- **Practice attendance**
- **Other:** volunteer needs

PREPARE, PREPARE

- Draft an outline of the content of the meeting. Make sure the outline is both complete and accurate. Do not assume that you will remember items without having them in your outline. You will be distracted by discussions in the meeting, and you may forget to cover all of the issues. After the meeting is too late to remember.

- Meet with the athletic director (or your supervisor) to review your agenda. Ask him or her to ensure that everything included is correct and that nothing is omitted.

- Invite the athletic director to your meeting. He or she can offer support and explain policies that have a historical background. However, do not allow a general, all-sports meeting at the start of the school year to substitute for a smaller, more intimate meeting with the parents of your players. Remember that the athletic director will not be at every practice or game.

- Meet with assistant coaches to go over all items. You may not agree on everything, but you must represent a united front on all issues. Disagreements should be handled privately, away from players and parents.

- Create a formal outline, incorporating changes suggested by your supervisor and assistant coaches. Completely write out all important items on an overhead transparency for the meeting. Overheads provide visual reference points to assure clarity and prevent omissions.

- Practice your presentation until you are comfortable. This is especially important to inexperienced coaches, who may not have spoken often in front of groups.

SCHEDULE THE MEETING

- Make every effort to ensure that parents attend. Some schools, clubs, and associations make parental attendance a prerequisite for athletes' participation. Choose a weeknight which is as free of conflicts as possible. Avoid Fridays, holidays, and days when school, community, or religious events are scheduled.

- Choose a central location with ample parking and access to public transportation (e.g., school cafeteria or public library).

- Have other important forms (medical or liability releases) available at the meeting, but do not let the discussion stray from the original intent.

- Use several means of communication — including the school newspaper or radio station — to notify parents of the meeting. Do not depend on notes sent home with players.

- If you sense a communication problem or a conflict, consider an alternate night for a second meeting.

- Decide whether players should be present. The age and level of competition should determine the answer to this question. However, it is always best to have all parties present to hear the information from the source. Do not allow players to attend without their parents!

CONDUCT THE MEETING

- Dress appropriately and start on time. First impressions are important. If you expect players to be on time for practice and games, you must provide the example on the first night.

- Introduce yourself. Remember what parents valued in the two Stewart (1996a, 1996b) studies — the

coach's ability to teach, knowledge of skills and credibility. Also remember what they did not value — in both studies, they rated "experience as a player" 9th out of 10 characteristics. Discuss your background, *coaching and teaching* the sport, do not waste valuable time discussing your playing experiences. Talk about your training in specific coaching classes, workshops, or licensing procedures. Be concise, but do not cut off important discussions.

Explain your coaching philosophy. Many novice coaches confuse philosophy with platitudes. "Building character," "developing teamwork," and "teaching sportsmanship" are certainly important goals, but coaches themselves have difficulty agreeing what behaviors represent these characteristics. Be specific. In addition, your coaching philosophy will guide the policies listed in Table 1, and you must be ready to discuss each of them with parents.

The relationship between a coach and parents is as important as the relationship between the coach and players. Coaches who recognize the potential of good parental relationships will develop them with strong, honest communication.

Stewart, C. Craig. "The Coach-Parent Meeting." From Strategies (Vol. 10, No. 2, 1996) pp. 13-15.

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Coaching Behaviors: "The Way You Were, or the Way You **Wished** You Were"

Craig Stewart

Behavior is the "window" to the true philosophy of any coach. While most coaches, including myself, can talk a "good game" in front of parents, boosters or school boards, the real answer to what type of coach and person we are is the specific behaviors we exhibit "in game situations or behind closed practices". Those behaviors reflect our coaching philosophy and are observed and remembered by the individuals closest to us. If we become head coaches, then the whole athletic program will reflect our cognitive, affective and behavioral ethics (Sabock, 1991). Whether it is a handshake with an opposing coach at the end of a hard fought match, a verbal blast at an official or a swing at an opposing player, behaviors usually show our true selves. Any overt coaching behavior, whether viewed by a parent's video camera or a national television audience, can serve as a revealing source of individual revelation and self judgment, an origin for administrative evaluation or an invariable determinate of our future in the profession. But regardless of how endearing or shocking the behavior, it usually comes to no surprise to the people nearest to us . . . our players.

Athletes are a powerful, but often untapped, source of information for a coach (Anshel, 1990). Because of its extreme validity, player input can be very beneficial to the coach and the overall welfare of the athletic program. Athletes, regardless of age and experience, are exposed to coaching behaviors regularly and usually over a prolonged period of time. They not only observe the "peaks and valleys" of coaching behavior, but are the recipients of the consequences and are rarely asked for their insight. More often than not, player input is either ignored or underrated. To tap the reserve of information, athletes should be provided nonthreatening (to both players and coaches) opportunities to provide feedback concerning the athletic program. If coaches are interested in the reflections of their true philosophy via their behaviors, players who have completed their tenure under that coach (what player would jeopardize their position by being honest with a dictatorial coach?) are excellent sources. Unfortunately coaches have a natural tendency not to recognize the value which could be realized from ex-players, lose touch with their players, or fail to ask the right questions at the appropriate time. The purpose of the paper was to investigate the memories of future coaches as to the types of behaviors they associated with past coaches. It was hoped that by asking students who were also ex-athletes what types of behaviors they remembered and how they categorized those recollections, some insight for both present and future coaches could be acquired.

As part of class assignments for an introduction to coaching class, 87 students were asked to write a paper in which they anonymously described both their favorite and their least favorite coaches in their athletic careers. They were also asked to identify the specific behaviors which made the respective coaches the favorite and least favorite. Over 90% of the 87 students had been athletes at least through high school and about 50% had been (or were currently)

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college athletes. As the papers were evaluated, specific behaviors were separated into negative and positive lists and then categorized based upon commonalities (see tables). The categories were designated "cognitive behaviors"; those dealing with behaviors which reflected knowledge based attributes such as teaching, communication or development skills; "affective behaviors"; those behaviors dealing with feelings, or areas which are often referred to, but very difficult to quantify such as, motivation, caring, praise, love, humiliation and favoritism, and, finally, "physical behaviors"; those behaviors which could be quantified or documented with "hard" examples such as stressing winning above everything, showing up late or unprepared for practice, stressing doing your best, using player input and being available for the player on and off the field.

While the result of categorization was not as exclusive as desired, it still allowed a closer examination of what coaching behaviors ex-athletes remembered as positive and negative. The survey revealed that ex-players identified coaches as "favorites" who knew the rules and the game, could communicate that knowledge and exhibited a genuine desire to improve the athletes' skills. Favorite coaches were also described as demanding in both their design of practices and pursuit of personal greatness, but also ensured that the pursuit incorporated "fun" and diversity. Contrary to the positive coaches were negative examples who were poor in all the aforementioned areas and were often described as confusing and/or contradictory in their communication skills.

There were more descriptors in the affective area than the other two. Positive coaches were remembered as being good motivators, honest, warm and caring while exhibiting confidence and pride in the players and their team. Those positive coaches appeared to their players as enjoying coaching, their sport and the players as individuals, while the negative coaches were remembered as having no enthusiasm, being inconsistent and exhibiting no self control, no respect for players or being a bad tempered, non-caring individual. Favorite coaches were recalled as being good friends, honest, approachable and always interested in players beyond the sport, while least favorites were described as egotistical, inconsistent, impersonal and biased in their determination of who played or received praise. Perhaps the most deleterious descriptors of coaches in this category were those who used humiliation, shame and ridicule as coaching tools and made fools of their players in front of teammates.

In contrast to the afferent descriptors, physical designates were more readily identified. Coaches exhibiting positive behaviors were remembered as being a positive role model, acknowledging the inevitability of mistakes by players, stressing doing one's best, welcoming and using player input and providing every player an opportunity to make the team. Positive coaches were remembered as stressing improvement while not criticizing or belittling, demanding perfection without screaming or yelling at players and being creative and exciting while making players feel important by working one-to-one with them. The negative behaviors were just as visible. Least favorite coaches were remembered as stressing winning at any cost, lieing to players, demanding respect without earning it and overworking players. Some coaches were even recalled as abusing smaller or younger players, running up scores unnecessarily and using fear and degradation as motivators.

All in all, the characteristics of both favorite and least favorite coaches remembered by athletes were very enlightening. The categories and characteristics related in this report are very similar to the work of Anshel (1990) in which seven categories of undesirable coaching behaviors were identified. Most of those categories . . . the lack of effective communication (including inappropriate content in pregame and half time talks); lack of explanation of rationale of strategies to players; expression of anger toward athletes; not defining the role or status of non-starters; failure to treat players as individuals and

the ineffective use of assistant coaches were identified by the students in the coaching classes.

Discussion:

Few coaches, if any, begin their coaching experiences with the intent to be anything other than a very positive influence on their players and teams. The positive characteristics remembered by athletes and ex-athletes in this study are indicative of the qualities which all coaches hoped to exhibit. Most of us want to have a positive impact on the physical, psychological and emotional growth of the young athletes that we encounter. We want to care about players away from sports and see ourselves as always being patient, ensuring every practice is both fun and developmentally sound while preparing teams who are competitive and improving every year. The question then becomes, why do some of us end up in the "negative column", not in wins and losses, but in the memories of our players? Where do the well intentioned goals get misplaced and change some of us so drastically? The answer to that question is complex and stems from many of the problems which exist in the coaching profession today.

In some areas, the authenticity of coaching as a profession is being questioned. A profession is generally defined as an occupation which requires advanced education and training, involves a majority of one's professional time, and serves as one's primary means of livelihood. To be a "profession", therefore, coaching must satisfy each criteria. Certainly, at any level, coaching consumes a great deal of time, especially during the season. It has been estimated that a coach in season will spend as much as 40 hours per week or more with the players. Along with the time commitment, coaches are expected to know and apply more non-sport specific information than they have in the past. Whole curricula such as the American Coaching Effectiveness Program (ACEP) and the Program for Athletic Coaches' Education (PACE) have been developed in response to the instructional needs of coaches. Unfortunately neither the requirement of advanced education or coaching as a primary source of income is a reality to many coaching positions. Today too many coaches are still poorly prepared and are participating in coaching as either an additional professional responsibility or as a volunteer. The situation often results in a coach with limited professional preparation, minimal knowledge outside the particular sport and little understanding of the complexity and demands of the position, and who does not depend on coaching as a primary source of income. When a profession does not furnish the primary source of income, it is easier for it to become less of a priority. It is little wonder, then, that there are coaches who, in their struggles to survive in athletics, develop many of the negative behaviors identified in this study. That knowledge does not forgive or excuse the negative behaviors of coaches, but is a first step in understanding the foundations of those behaviors and therefore giving educators direction as in eliminating or preventing them from ever occurring.

Another step in the elimination or prevention of negative behaviors is a realization of the social inconsistency that many coaches face in their professional lives. There are numerous contradictions which a coach must endure in the athletic environment. One common contradiction is the failure of athletic departments, school boards or private clubs to define and adhere to a philosophy of sport. Too often, members of those organizations fail to accept the value of defining a philosophy for their sports. They see it as an exercise in academic frivolity or something to be postponed, often indefinitely, until after the more immediate problems, such as scheduling, hiring coaches or fund raising, can be addressed. It is not until more serious questions arise that the need for a philosophy, or basic underlining goal statement(s) is recognized as a necessity. By that time, it is often too late.

In the same way that behaviors exhibit the philosophy of a coach, the philosophy of a sport organization can dictate or guide the behaviors of a coach. In the initiation of a philosophy, sport leaders must answer basic philosophical questions such as . . .

"What are we trying to do in sport?"
. . . win at any cost?
. . . develop physical sport skills?
. . . have fun?
. . . develop psychological and emotional growth in athletes?
. . . make money?
. . . increase players' chances for scholarships?
. . . develop better students?
. . . build sportsmanship and the ability to cooperate with others?

The honest answers to those questions, and others, will reflect the true philosophy of that organization. Unfortunately, the honest responses are not always the ones given to the press, school board or parents. The "true" answer to the question "To what length will we go to succeed?" will give everyone an indication as to what negative behaviors will be tolerated by a coach whose teams win, or how quickly a coach who develops skills and other positive non-athletic characteristics in players will be terminated if the team loses too much. The development of a "philosophy" which is both honest and specific is very difficult to achieve, but is one of the procedures necessary in addressing the problems identified in this paper.

Another remedial procedure is to investigate and accept the nature of coaches. The vast majority of coaches get into the "profession" because they, initially at least, loved the sport, enjoyed teaching and/or benefited from having a positive impact on young athletes. In a study of nearly 300 coaches in Montana, Stewart and Sweet (1992) found that 89% had gotten into coaching for at least one of those reasons. Furthermore, Coakley (1990) stated that while there are inflexible, insensitive coaches in athletics, there are no more than outside sport. Coakley is one of the few professionals to observe that the role of the coach is, unlike the physical educator, directly related to competition and competitive success. The implication is that there needs to be a consensus that competition is fine, if accomplished within the proper parameters, and that the sport administrators, whether in the public or private sector, need to accept outright that striving to be competitive and successful is one of their program's primary goals. Society's failure to agree on an overall goal for athletics has contributed to what Coakley (1990) referred to as "strategic withdrawal" within the coaching profession. Strategic withdrawal is a formation of coaching sub-cultures where members share common values, beliefs and customs. Coaching sub-cultures, in themselves, are understandable and even acceptable, but the additional characteristics of "likely to perpetuate accepted methods of doing things within a group" and "discouraging change within a profession" denies the growth of knowledge in sport sciences, the change in personalities of today's athletes or the evolution of society's perception of the role of sport. Coakley (1990) concluded that the development of a coaching sub-culture "would appear to be the result of the requirements of the (coaching) situation and not a product of underlying, generalizable traits (of coaches).

If the theory of "sub-cultures" is true, then the perpetuation of negative behaviors is a serious concern and justification for an attempt to provide the necessary educational and administrative support for coaches. The support needed is typically in the form of change, and change for coaches is frequently resisted. Some sport psychologists have suggested that patent acceptance of the need for change in coaching style in response to the various personalities of athletes is necessary for the long term success and survival of coaches (Iso-Ahola, Seppo & Hatfield; 1986). To develop the ability to change, however, most coaches will need assistance. Society's view of athletics has changed from a relatively total acceptance of the command style, no-nonsense coach to a more questioning and demanding society which no longer places athletics or coaches in the same category as "Mom, the American Flag and apple pie" (even the sacredness of those three icons has been challenged). In so doing, society demands greater accountability from the coach. If coaches are continuing to be developed from, or even influenced by, the

closed "sub-cultures" with minimal prior preparation for their "new" roles, then they are destined to struggle. A "struggling" coach is one who is more likely to disregard some of the loftier goals for more traditional, "hard-nosed" approaches to coaching. An adherence to a command style coach could foreseeably reduce stress by the elimination or devaluation of human interaction or concern for players.

Coakley (1990) presented nine reasons why coaches might fall back on more traditional coaching styles. He wrote that many coaches are so absorbed with game preparation, tactics and skill development that they do not hold players' feelings or personal needs as a high priority. A general lack of preparation in the non-sport specific areas of coaching contribute to that characteristic. The individuals become coaches who coach the game and not the players. Since most are ex-athletes, they know the game better than they know the characteristics of athletes. Understandably, if the new coach's input was not encouraged as a player, then players' are not recognized as valid sources of feedback. If coaches do allow player feedback, they can be highly selective to which player(s) they will listen. Typically coaches accept feedback from players who mimic their own perceptions and ignore players whose ideas might conflict with theirs. Comparably, coaches may see themselves as meeting the needs of some of their players, and do not see it as part of their professional responsibility to meet the needs of ALL athletes. A coach who accepts that philosophy will certainly experience conflict with parents and administrators who see all athletes as deserving of individualized attention and consideration. In a minority of cases, the personality of the coach may be such that open communication, healthy player/coach relationships, or player input are not possible. Some victorious coaches honestly see themselves as successful and neither have the desire or see the need to change. Finally, the players have responsibility in some cases. There are players who are either too shy or reluctant to communicate their feelings directly to the coach or see the traditional coaching style as the only way to ensure "success" as it is customarily defined . . . WINNING.

Conclusions:

Players are important sources of information as to what behaviors a coach is actually exhibiting. If coaching behavior is important to the coach, athletic administrators or parents, player input should be sought as a viable source of documentation. To fully appreciate the information received, those seeking it should adhere to certain guidelines and interpret feedback carefully within the context given. Players and coaches should be assured that the evaluation process is an anonymous, non-threatening situation whose primary goal is the improvement of the total athletic program. Players should not feel coerced nor intimidated if they are to communicate honestly, nor should it be just a case of players venting petty complaints at a coach. Players should feel that at least some of their input creates a change in behaviors or the situations which caused them. By the same token, athletic administrators must be responsive to coaches' circumstances and understand what environmental considerations might need altering to assist in behavioral changes. Goals and expectations for coaches and athletic programs might need to be re-defined, varied or diversified.

To achieve goal clarification, parent groups need to be included to delineate further the objectives of the athletic program. If the coach and the administrators are in agreement on the athletic mission, but parents, who often are a chief source of pressure and stress for coaches, are either unaware or have not participated in the development of an athletic philosophy, little has been achieved. Whether or not parents are included in the creation of athletic objectives, the goals must be unambiguously communicated to them repeatedly. Whether the goals are total commitment to a recreational, noncompetitive athletic program, a "win at any cost" approach or a logical compromise, parents and players must be aware of them prior to participation.

Table 1

BEHAVIORS OF "BEST" COACHES

COGNITIVE BEHAVIORS	AFFECTIVE BEHAVIORS (feelings...)	PHYSICAL BEHAVIORS
* good teacher	* good motivator	* never humiliated players
* taught every player, every aspect of the game	* made the game fun	* individual attention to players
* took time to teach players	* could talk to & trust him	* seldom yelled & showed confidence in players
* taught sportsmanship & respect for opponent	* cared about the players	* was creative, exciting coach
* stressed fundamentals	* very positive	* a role model
* stressed the total student/athlete	* patient, supportive & interested in players as people	* was fair and consistent
* demanded personal greatness	* practice was fun	* easy to talk to
* knew the sport	* cared about me off the court	* treated all players fairly
* set weekly goals for team	* was honest	* listened to players
* great knowledge, communication & motivation skills	* always could go to coach about anything	* fair & consistent
* good training techniques	* thoroughly enjoyed coaching	* let players know it was OK to make a mistake
* knew the rules of the sport	* upbeat & encouraging	* was more than a coach...a friend
* practices were intense, but fun	* a great friend	* was there for players, on & off the field
* arranged routines & used new drills	* knew how it felt to have a bad performance	* participated with the players
* set goals	* always believed in team's ability	* did not leave anyone out
* organized, calm, but in control	* warm, compassionate, understanding & honest	* stressed doing your best
* stressed fundamentals first, winning second	* cared for the development of total player	* stressed improvement
	* good personality traits	* let players make some decisions
	* built confidence in players	* used player input
	* sparked pride in players	* did not scream or yell at you...
	* was enthusiastic	* told you why you were taken out
	* was honest	* a perfectionist; demanded my attention...
	* supportive	* did not dwell on mistakes...
	* motivated players	* never criticized or belittled...
	* loved the game	* made us feel important by working 1 to 1 with us...
	* caring, helpful & understanding	* fair, gave everyone a chance...
	* proud of players regardless	
	* encouraged players	
	* friend 1st...Coach 2nd	
	* showed and earned respect	
	* had confidence in players	
	* interested in players	
	* motivated & disciplined players	

TABLE 2

BEHAVIORS OF "WORST COACHES"

COGNITIVE BEHAVIORS	AFFECTIVE BEHAVIORS (feelings...)	PHYSICAL BEHAVIORS
* no knowledge of game	* used negative comments for motivation	* did not take responsibility when things went wrong
* no insight into game	* no positive reinforcement for things done well	* lazy
* no communication	* showed favoritism	* always "my" team never "our" team
* seldom a word of praise	* very impersonal	* stressed winning at any cost
* always contradicted himself	* no respect for players	* overworked players
* never an explanation as to why we had to run	* shameful if team lost	* screamed degrading comments
* did not teach or motivate us	* selfish	* used fear as motivator
* was confusing	* was not dedicated	* ran up score
* did not know how to condition us	* no self control	* treated players as objects
* did not enforce his own rules	* inconsistent	* did not know when to quit
* did not know the game	* showed favoritism	* too dominant
* did not want to develop unskilled players	* lacked motivation	* very critical
* lack of experience	* poor sportsmanship	* winning is everything
* unprofessional	* non-caring	* just wanted the money
* poor communication skills	* bad temper	* showed up late for practice
* poor listener	* no praise or confidence building	* obsessed with statistics
* did not know the game	* did not motivate	* wouldn't tolerate opinions or questions
* uninformed & inconsistent	* showed favoritism	* "cut" players down
* did not develop skills	* no love of sport	* was not dedicated
	* inconsistent	* lied to players
	* let personal factors influence who played	* abused younger/smaller players
	* too much joking at practices	* was strictly to winning
	* not dedicated	* was dishonest to me & to others
	* totally alienated players	* demanded respect without earning it
	* only best athletes got praise	
	* did not care about us as individuals	
	* his goals were way out of whack with ours	
	* no emotion	
	* an egotistical maniac	
	* played favorites with seniors	
	* worked himself into a frenzy	
	* was always reliving his past	
	* never gave credit for doing a good job	
	* used humiliation & ridicule; was moody	
	* made fools of us in front of other players	

If philosophies are developed and communicated to all involved in athletic programs, great strides will be achieved to alter many of the negative behaviors still documented in coaching. If coaches, players, administrators and parents are, literally and figuratively, on the same page of the philosophical "play book", then less stress will be encountered by all. The reduction of stress in coaching will lead to a more positive relationship between the coach and players and contribute to a more positive athletic environment.

Finally, the lack of reference to winning by players as a prerequisite for a coach to be considered a favorite must be noted. The future coaches surveyed in this study said little concerning the win-loss record of their teams. According to Iso-Ahola, Seppo and Hatfield (1986) player satisfaction in sport participation is often a direct result of coaching behavior, not successful team performance. That observation is supported in this study.

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Unit 3

Theory of Coaching: Physical Fitness & Condition of Athletes

"Physical fitness is not only one of the most important keys to a healthy body, it is the basis of dynamics and creative intellectual activity."

-- JFK

Theory of Coaching: Physical Fitness and Condition of Athletes

Unit 3 Goals:

(Your objectives will be accomplished as you respond to the various assignments.)

After watching Strength and Conditioning and reading the assigned materials, coaches will understand:

- Health and skill-related components make up the two major categories of physical fitness.
- The development of sound physical training programs should incorporate periodization and the exercise physiology principles of physical training.
- The multi-conceptual nature of fitness and the individual training needs of all athletes must be addressed within their physical fitness training programs.

Overview

Unit 3: Physiological Conditioning of Athletes: Strength and Conditioning of Athletes

I. Skill Related components of performance

   A. Agility
   B. Balance
   C. Coordination
   D. Power
   E. Reaction time
   F. Speed

II. Health related components of performance

   A. Body composition
   B. Cardiovascular endurance/aerobic power
   C. Flexibility
   D. Muscular endurance
   E. Muscular strength

III. Coaching implications for the components of performance

   A. Youth sports implications
   B. Interscholastic sports implications
   C. Intercollegiate sports implications

IV. Creating an effective training program

A. Periodization

1. General adaptation syndrome: alarm-resistance-exhaustion
2. Specificity
3. Progression
4. Overload
5. Intensity
6. Duration
7. Volume
8. Rest & recovery
9. Variation

B. Age group considerations when creating a training program

1. Youth sports
2. Interscholastic sports
3. Intercollegiate sports

Learning Objectives

(Your learning objectives will be accomplished as you respond to the various assignments within this program.)

1. After viewing Strength and Conditioning, explain the health-related and skill-related components of physical fitness and apply them to your athletic program.

2. After viewing the video and reading Richards' "Training for High-Level Fitness: Applying the Eight Principles of Physiological Training to Your Athletic Program," describe the eight exercise physiology principles of physical training.

3 Using the components of physical fitness, principles of training, and the NSCA position paper of youth resistance training, construct a ten-item developmentally sound "Goals of Conditioning" statement for your resistance training program. This statement will be for distribution to all your parents and athletes.

4. After viewing the video and reviewing the entire set of readings, complete a 300 word essay that would convince your athletes that they need to identify and consistently address their individual fitness weaknesses (ex.= muscular strength, power, agility, or flexibility).

Assignment 6: (15 points)

(Use the MS Word document "Course Study Guide Answer Pages" provided for your convenience in word processing.)

Obviously, athletes in youth sports, interscholastic programs, and intercollegiate programs are very different in their developmental levels of physical fitness.

1. Identify your area (or projected area) of involvement as a coach.

2. List and define the five health-related components of fitness and the six skill-related components of fitness.

3. Choose one component from each category that is particularly important to your sport and explain why this category has special impact .

Assignment 7: (15 points)

(Use the MS Word document "Course Study Guide Answer Pages" provided for your convenience in word processing.)

After reading the articles listed below, included in the Study Guide, imagine that you are an athlete in your program who is looking to your coach to provide a training program that is backed by scientific principles of physical conditioning.

- Richards, Pamela E. "Training for High-Level Fitness: Applying the Eight Principles of Physiological Training to Your Athletic Program."

- Browder, Kathy D., and Darby, Lynn A., "Individualizing Exercise: Some Biomechanical and Physiological Reminders." JOPERD, Vol. 69 #4, April 1998.

1. List and explain each of the scientific principles of physical conditioning as outlined by Richards?

2. Showing your work, use the formula for calculating target heart to establish your maximal heart rate and working heart rate.

3. According to Richards' article, on what is the normal target zone based?

4. Based on your answer to question 3, how would intensity be increased?

5. As training goes from simple to complex, intensity should be progressive and increased only gradually. Using the principal of progression, what percentage should govern the amount of physical increase in one week?

Assignment 8: (15 points)

(Use the MS Word document "Course Study Guide Answer Pages" provided for your convenience in word processing.)

Resistance training can have benefits for all athletes as long as the training program follows guidelines such as those summarized in the article "Youth Resistance Training: Position Statement Paper and Literature Review."

1. Identify the age of the athletes you coach or will coach in the future.

2. Using information from the above article, construct a ten-item, developmentally sound "Goals of Conditioning" statement for your resistance training program that you will distribute to both your athletes and their parents.

Assignment 9: (15 points)

(Use the MS Word document "Course Study Guide Answer Pages" provided for your convenience in word processing.)

Case Study: A freshman female soccer player is interested in going out for the varsity soccer team at her high school.

1. Fully describe the drills that you would use to separately test the above player's agility and speed.

2. Explain how would you use the principle of progression to address these two performance components of conditioning?

Assignment 10: (15 points)

(Use the MS Word document "Course Study Guide Answer Pages" provided for your convenience in word processing.)

Like most human beings, many athletes would rather play to their strengths than attack weakness. While general motivation is always important, coaches must take care to help athletes understand the importance of developing a complete fitness regimen.

1. Identify the age of the athletes you coach or will coach in the future.

2. As a coach, write a 300-word essay that you would distribute to your athletes or use as an oral presentation that persuades them that they need to consistently address their individual fitness weaknesses. Include three examples of physical weaknesses and explain what specific test/drill will be used to initially assess each weakness.

Unit 3 - Assignment Sheet

Assignment 6: (15 points)

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Assignment 7: (15 points)

1. List and explain each of the scientific principles of physical conditioning as outlined by Richards.

2. Showing your work, use the formula for calculating target heart to establish your maximal heart rate and working heart rate.

3. According to Richards' article, on what is the normal target zone based?

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Suggested Readings:

American College of Sports Medicine. (1998). ACSM Fitness Book. (Second Edition). Champaign, Illinois: Human Kinetics Press.

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Training for High-Level Fitness: Applying the Eight Principles of Physiological Training to Your Athletic Program

Pamela E. Richards, Ed.D.

Consider for a moment that you have an athlete in your youth sport tennis program who exhibits all the ground strokes to be a world-class player, but who is so out of shape that he/she barely can complete one set of tennis let alone an entire match. You would want his/her conditioning plan constructed by a competent coach who recognizes that just as there is a correct dosage of medicine for treating an illness, there is a correct dosage of exercise for developing the specific components of physical fitness to be competitive on the tennis court. The threshold of training within this conditioning plan is the minimum amount of exercise required to obtain a physiological effect, but few coaches understand what this concept means or how to apply it to train athletes and maximize their physical fitness while avoiding overtraining or burnout. Of all the methods published about how to "get into shape" and "stay fit," none are more confusing and inaccurate than those that guarantee fitness for life if an individual follows a training regimen for a specific number of weeks. These methods are confusing because an individual's physical fitness is not uniconceptual in nature, and they are inaccurate because a human organism's functions are always changing, demanding adjustment, modification, and adaptation to his or her environment to achieve and maintain a high level of fitness.

Because coaches want to have the most competitive teams they can develop they often explore a broad variety of packaged fitness programs that promise specialized results instead of adopting a scientific approach to complete physical conditioning. There are empirically documented principles of physical conditioning which have emerged from the literature of exercise physiology (deVries & Housh, 1994), but these principles are not well known outside the

academic community. It is still common for a coach to tell an athlete to work out and get in shape, but many coaches fail to explain what they mean by "in shape," and how to go about getting "in shape." With any exercise regimen, the following questions usually occur: What kind of exercise? How much exercise is enough? How much exercise is too much? How much exercise is optimal? How should I exercise?

Athletes generally want to be the absolutely best they can be and will do most anything a coach asks them to accomplish this goal. Coaches, therefore, need to be aw. of their responsibility to know exactly what they are demanding of their athletes and how to accomplish a developmentally appropriate level of athleticism. The purpose of this paper is to discuss how the eight principles of physical conditioning can be utilized in the development of a high-level physical fitness program that is dynamic rather than static in nature, one that pursues fitness for success in sport.

Eight Training Principles

The following eight training principles are essential in building a sound training program:

- specificity
- overload
- intensity
- progression
- duration
- regularity
- recovery
- overtraining

(deVries, and Housh, 1994).

One principles does not override another; all the principles need to be understood and used together to build a training program for fitness.

Specificity

Stated in the simplest terms, specificity is what the individual exercises to be. It is based on the SAID principle which is: Specific Adaptation to Imposed Demands. More directly, this principle means that following a period of general conditioning, training should be designed to imitate as closely as possible the actions of the particular activity for which the individual is preparing.

In practical terms, that means the coach must determine the nature of the components of fitness to be utilized in their specific sport. Working on general muscular strength will not help a football lineman be more effective if he does not work the specific arm, leg and back muscles he needs to block for the quarterback, at the speed that blocking occurs. Many athletes turn out to be gym rats that like to lift, but the principle of specificity addresses the point that you must lift with the muscles utilized for your specific sport at the speed of competition. Therefore, to insure specificity, the following factors must be taken into consideration: (1) the quantity and type of conditioning demanded by the activity, (2) the weakness and strengths of the individual, and (3) the most effective technique or type of training to provide the desired result.

Overload

The second principle is overload. This principle refers to the amount of work and stress imposed above the normal level to which an individual is accustomed. The amount of overload necessary to induce a training stimulus varies with each individual and component of fitness. The technique used to determine overload for

the cardiorespiratory system is heart rate, for muscular strength it is amount of weight lifted by the muscle, and for flexibility it is the range of motion at the joint. The following formula is utilized to determine target heart rate zones:

Formula for Calculating Target Heart Rates

Maximal heart rate: 220 - Age (in years) = Maximal Heart Rate _____

Maximal heart rate - Resting heart rate = Working Heart Rate _____

Lower Limit of Target Heart Rate (Threshold of Training)

Working heart rate X .60 = _____
+ Resting Heart Rate = _____

Upper Limit of the Target Heart Rate

Working heart rate X .80 = _____
+ Resting Heart Rate = _____

Upper Limit of Target Heart Rate _____

In order for the principle of overload to be effective in regards to developing the cardiorespiratory system, the amount of work by the heart and circulatory system should be increased as the body adapts to the growing demands placed upon the system. Overload is a positive stressor of the human organism and can be quantified according to load (intensity and duration), repetition, rest, and frequency (Brooks, Fahey, & White, 1996). A coach should determine the threshold parameters for cardiorespirtory fitness with each athlete's heart rate, for muscular strength the coach should utilize the maximum amount of weight an athlete can lift at each weight lifting station, and for flexibility the coach should use the total range of motion for

each stretch. A practical consequence of increased work is a physiological plateau which will stall or slow down the improvement process - the only way to overcome this plateau is to vary the intensity and duration of your workouts so that you continually overload your body in one dimension of overload or another.

It must be remembered, though, that the amount of overload cannot be continually increased. There is a point of diminishing return. As an athlete continues to train, it takes more and more effort to obtain physiological results. At this point, intensity, the next training principle, must be considered.

Intensity

Intensity refers to energy expended in a unit of time. The current thought is to increase pace or intensity so that the individual is working at a greater percentage of maximum. Again the easiest approach to individualizing intensity for the cardiorespiratory system is to use the target zone based on resting and maximal heart rates. The normal target zone is based on 60% to 80% of an individual's maximal heart rate for thirty minutes. If one wants to increase intensity, he/she can shift the zone to 70% to 90% maximum, or he/she can keep the same target zone but do it for forty minutes one day and thirty minutes the next. For muscular strength, instead of lifting 60% to 80% of the athlete's max he/she can lift 70% to 90%. One must be sure, however, never to increase duration and intensity at the same time.

Progression

Progression is the next principle. All training should be progressive. It should go from simple to complex, from easy to hard, and quantity to quality (from amount to intensity). Also, overload and intensity principles should be increased gradually. One should never increase the workload over 10% per week, per component of fitness. For example, if the amount of weight that is lifted at one time

is increased, the accompanying cardiovascular workout should remain the same. If the weight remains the same, the duration of the cardiorespiratory workout should be increased by 10%.

Duration

Duration refers to the length of training time. This will vary with the individual and the objective of the specific workout. It takes a minimum of 30 minutes of cardiorespiratory work to obtain a biochemical adaptation to training within the circulatory system. It is important that when setting a specific amount of time for training, that exercise extends for that amount of time without waver. For example, thirty minutes versus 27 or 28 minutes. It is easy to rush through a two or three mile run, but 30 minutes is 30 minutes. If coaches do not want to use practice time for conditioning, they need to incorporate this amount of cardiorespiratory work into their drills or skill development activities.

Regularity

Regularity, the next principle, is based upon exercise which is set up on a regular basis depending on the goals of the athlete and coach. It takes 36 hours for the body to recover from a bout of exercise irregardless of the type of exercise; ie., strength training vs. cardiorespiratory endurance. Therefore, though an exercise plan may focus on a different aspect of fitness from day to day, exercise should occur every day. Every day missed from an adopted routine is three days of wasted effort. An athlete's fitness regimen should be a year-round program which takes into account the reality of his/her life. Coaches need to impress upon athletes that being year round athletes will greatly increase their chances for success in the competitive arena. There are a multitude of factors which can influence an athlete's

commitment, but, with a little forethought and time management, a coach can help an athlete plan an hour a day to pursue conditioning.

Recovery

As mentioned previously, recovery is one of the most neglected principles of training. Every training program should have adequate time for the organism to recover and replenish energy stores. This is the time the body adapts to the stress placed upon it by exercising. Recovery is necessary from day to day as well as from exercise task to exercise task. Inadequate recovery time will lead to a decrease in the quality of training and negligible improvement. A definite rhythmic cycle of work to rest should be observed for each athlete. The most common formula of this cycle is the hard-easy pattern; he/she should work hard one day and easy the next. Young athletes sometimes require two easy days to recover following a hard day. It is also important to remember that more rest or recovery is required after high intensity exercise efforts.

Many athletes worry about getting their workout in and then zoom around for the rest of their day. Those demanding schedules are also hard on the human organism; the body needs the opportunity to rest and recover. Again, time management and setting priorities in the athlete's daily schedule will help coaches make athletes gain perspective on their life's responsibilities. If an athlete wears out his/her body, which is his/her main source of transportation, no obligations will be fulfilled.

Overtraining

The last principle is overtraining. Overtraining is left until last because it is not desireable. Overtraining occurs when all the other principles are not followed; it

is a chronic state of fatigue. Often times it is as much psychological as it is physical. The cure is either to stop training entirely or to drastically change the training routine to shock the organism. Overtraining is a much more dangerous condition than undertraining. When many young athletes begin an exercise program, they believe that they must physically hurt or be tired all the time to obtain a physiological effect. Athletes must train, not strain. This means following the previous seven principles and developing an exercise routine based on each individual athlete's goals and target physical condtion. Coaches should encourage athletes to develop their own physical fitness, and not compare themselves to teammates or athletes on other teams.

A multiprincipled approach to physical fitness is important to all people, but is particularly important to athletes who want to excell in their chosen sport. Many times athletes train and train and never reach their physiological potential. It is essential, therefore, that coaches understand how to incorporate realistic expectations for their athlete's fitness regimens. High-level physical fitness is not a panacea, a vision at the end of the rainbow, but an ongoing process - a condition always in the state of development, but one that can help every athlete reach and obtain their athletic dreams.

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Individualizing Exercise: Some Biomechanical and Physiological Reminders

by Kathy D. Browder
and Lynn A. Darby

Biomechanics and exercise physiology form the knowledge base for selecting and evaluating exercises. Individuals perform exercise to improve personal fitness, control body weight, improve psychophysical well-being, improve rehabilitation efforts, and achieve optimal performance. Whether improving personal fitness, leading exercise for a group, or revitalizing a routine workout, a person needs to individualize his or her exercise.

Individualizing exercise. Individualizing exercise means identifying needs that are unique to the exerciser (e.g., fitness level, abdominal muscle weakness, muscles involved in swinging a golf club), and then designing an exercise program to meet these needs.

The American College of Sports Medicine (ACSM, 1995) notes that systematic, individualized endurance exercise includes the appropriate type, intensity, duration, frequency, and progression of physical activity. These general guidelines for prescribing cardiorespiratory (endurance) exercise appear in table 1. For improving muscular strength and endurance, the National Strength and Conditioning Association (Baechle, 1994) has specified guidelines that include specificity, intensity, progressive overload, frequency, periodization, and exercise order (table 2).

While these guidelines are familiar to many physical educators, exercise specialists, and sports medicine personnel, their individualization is sometimes overlooked as exercise programs become routine and serve a large number of participants. ACSM and NSCA have produced several publications to assist individuals with this task (ACSM, 1993; ACSM, 1995; Baechle, 1994). This article will review several key points that may help exercise leaders to individualize new exercise programs or act as reminders to rejuvenate routine workouts.

Cardiorespiratory Training

Before beginning a cardiorespiratory training (i.e. aerobic exercise) program, it is important to determine the goals of the program. Two questions should define these goals: (1) are you training for a specific skill, activity, or sport, or are you simply training to improve overall health and fitness, and (2) if training for a specific skill or sport, is the goal of your training endurance or power? The guidelines presented in table 1 are important regardless of the answers to these questions, but they should be varied depending on those answers. If the program aims for overall health and fitness, then balance should be maintained between developing endurance and power. If training for a specific activity is the goal, then one of these may be emphasized more than the other (e.g., long slow distance training to improve endurance versus high intensity speed training to improve power). In order to individualize a program, the following five concerns should be addressed as well.

Specificity of Training. Specificity of training for cardio respiratory training means having exercise that is suited to the muscle groups, the energy pathways (i.e., biochemical pathways, aerobic vs. anaerobic, that produce energy to do exercise), and the movement patterns involved in performance of the activity. Cross training (completing a number of different activities during a workout) has become a popular training method. During cross training, an exerciser may spend six minutes on the stair climber, move to the stationary bicycle and exercise for eight to ten minutes, and finish with six minutes on the rower. By adding variety, cross training can prevent boredom in a workout. However, if the exerciser is not achieving his or her training goal(s), it may be that "specificity of training" has been neglected. Exercise routines need to be matched to the exerciser's goals.

Table 1. Guidelines for Improving Cardiorespiratory Fitness

Guidelines	Definition	Recommendation/Example
Mode or Type of Activity	Exercise to improve cardiorespiratory fitness should be exercise that uses large muscle groups over prolonged time periods and is rhythmic and aerobic in nature.	Examples of appropriate activities include walking, hiking, running, machine-based stair climbing, swimming, cycling, rowing, combined arm and leg ergometry, dancing, skating, cross-country skiing, rope skipping, or endurance game activities
Intensity	The level of difficulty of the exercise. The proper intensity of exercise can be determined for each individual using heart rate or a rating of perceived exertion from the exerciser.	50%-85% of Heart Rate Reserve (HRR); Use the heart rate reserve method to calculate training HR: 1. Determine maximal heart rate (HR(max): 220-age=HR(max) 2. Maximal heart rate minus standing resting heart rate (HR(rest)) to obtain HRR 3. Calculate 50% and 85% of HRR. 4. Add each of these values to resting HR to obtain the target training heart rate range of 50-85%. Training HR=[HR(max)-HR(rest) x .50 and .851] + HR (rest)
Duration	How long the exercise will last.	20-60 minutes of continuous aerobic activity
Frequency	Number of times exercises (i.e., workout sessions) is performed in a time period.	3-5 sessions per week
Rate of Progression	Amount of change in the intensity of exercise; occurs as the exerciser becomes accustomed to the present level of exercise	Varies, depending on the capabilities of the exerciser; initial stage is usually 0-5 weeks; improvement stage 6-28 weeks, and the maintenance stage over 28 weeks.

Adapted from American College of Sports Medicine. (1995). *ACSM's guidelines for exercise testing and prescription.* Baltimore: Williams & Wilkins.

For aerobic exercise to be specific, two criteria should be considered: (1) intensity and duration of exercise, and (2) type of exercise. Short term, high intensity and duration of exercise (e.g. sprints or stop-and-start activities in racquet sports) depends on anaerobicbiochemical pathways. During these activities, lactic acid may accumulate more quickly and contribute to muscle fatigue. For those desiring to "burn fat," low intensity, long duration exercise that utilizes the aerobic biochemical pathways and fat as an energy source may be more appropriate.

While walking, running, cycling, arm cranking, swimming, rowing, recumbent cycling, and other activities can all be used to improve cardiorespiratory endurance, they differ in the criteria that make each one specific. The amount of muscle mass involved (e.g., small vs. large muscle groups; arm vs. let exercise), whether body weight is supported during the activity (e.g., running vs. swimming), and body position (e.g. recumbent cycling vs. upright cycling) all contribute to differences in exercise responses to these activities (Sharkey & Graetzer, 1993). Therefore, if you are training to run in a two mile "fun run," weight-bearing activity such as walking or jogging should be performed. Riding a stationary bicycle does not involve carrying the body weight and would not be as

Table 2. Guidelines for Improving Muscular Strength and Endurance		
Guideline	Definition	Recommendation/Example
Specificity	Development of exercise routines based on the needs of the exerciser and on the activity for which he or she is training.	The exercise specialist or strength coach should analyze the movement for which the muscle is being trained, and choose weight-training exercises that replicate the actual movement.
Intensity	Amount of weight per repetition, number of repetitions per set, and sets per workout; power output of an exercise.	Generally, 3-5 sets of 8-12 repetitions at 45-95% of one's repetition maximum (IRM). Intensity varies according to training level of individual, speed of movement, and desired goals. Guidelines for determination or estimation of a 1RM are found in NSCA (1994), pp. 435-438.
Progressive Overload	Forcing a muscle to work against loads greater than normally encountered, and making periodic adjustments in loads as the muscle adapts to the overload.	After 8-12 repetitions for 3 sets can be easily accomplished, increase the amount of weight lifted.
Frequency	The number of workouts per week.	Generally three to five workouts per week. At least one day of recovery is suggested between workout sessions involving the same muscle groups.
Periodization	Allocation of time (i.e., days weeks, or months) to the specificity, intensity, or volume of training to achieve strength goals; also referred to as cycling.	Exercisers usually decrease the intensity and volume (number of sets and repetitions) of their workouts prior to a performance or competition.
Exercise Order	Sequence in which exercises are performed in a workout session.	Exercises using large muscle groups and multiple joints (e.g., bench press) should be completed before exercises that use small muscle groups and single joints (e.g., biceps curl exercise).
Adapted from Moffat, R.J. & Cucuzzo, N. (1993). Strength considerations for exercise prescription. *ACSM'S resource manual for guidelines for exercise testing and prescription.* Philadelphia: Lea & Febiger. Baechle, T.R. (Ed.). (1994). *Essentials of strength training and conditioning.* Champaign, IL: Human Kinetics.		

effective for improving endurance for the run.

Intensity of Exercise

REMINDER: *Periodically review the workout goals and make exercises more specific to meet those goals.*

Is the intensity of the aerobic exercise appropriate? A good indicator of intensity is oxygen consumption, which is a measure of how much oxygen the body uses to produce energy by the various biochemical pathways. In the laboratory, exercise physiologists measure oxygen consumption by analyzing expired air collected from the exerciser. However, in a practical setting (e.g., jogging outdoors or in an aerobic dance class), the heart rate is typically used to monitor the intensity of exercise. It is important to understand that extraneous factors—anxiety, caffeine, nicotine, environment, etc.—increase the heart rate without a subsequent increase in oxygen consumption. If the heart rate is elevated by one or more of these

REMINDER: *Use the heart rate and rating of perceived exertion to monitor exercise intensity. Review the workout for factors that increase the heart rate without increasing oxygen consumption.*

factors, then the exerciser may not be working as hard as it appears, judging from the heart rate alone.

Another indicator of intensity that many exercisers often use to monitor their workout is their rating of perceived exertion, or how hard they feel like they are working (ACSM, 1995). However, many individuals underrate their level of exertion and exercise too intensely because they believe they need to be exhausted at the end of their workout in order to gain physical benefits. A good rule of thumb to follow is that the exerciser should feel refreshed and energized one hour after the workout.

Table 3. MET Levels for Various Activities

One MET equals the energy expended at rest in a seated position. An activity that requires 6 METs would need 6 times the resting level of energy to be performed.

Activity	Mean	Range
Badminton	5.8	4-9+
Basketball (game play)	8.3	7-12+
Bowling	-	2-4
Conditioning Exercises	-	3-8+
Cycling (pleasure or to work)	-	3-8+
Dancing (social, square, tap)	-	6-9+
Fencing	-	6-10+
Golf (walking carrying bag or pulling cart)	5.1	4-7
Hiking (cross country)	-	3-7
Mountain Climbing	-	5-10+
Paddleball, Racquetball	9	8-12
Rest, seated individual	1	-
Running		
12-minute mile	8.7	
10-minute mile	10.2	
8-minute mile	12.5	
Skating, Ice and Roller		5-8
Skiing, Snow		
Downhill	-	5-8
Cross-country	-	6-12+
Soccer	-	5-12+
Stair climbing	-	4-8
Standing		
Swimming	-	4-8
Tennis	6.5	4-9+
Volleyball	-	3-6
Walking	3.1	2.3-3.9

Adapted from American College of Sports Medicine (1995). *ACSM's guidelines for exercise testing and prescription.* Baltimore: Williams & Wilkins, pp. 164-165.

Use of Exercise Testing. Is exercise testing necessary? Exercise testing should be performed periodically to monitor the exerciser's progress. Typically, cardiorespiratory fitness is assessed by directly measuring or estimating maximal oxygen consumption. Direct measurements require expensive laboratory equipment (a metabolic cart) in which expired air is analyzed for volume and for concentrations of carbon dioxide and oxygen when the subject is exercising at maximum effort (i.e., to exhaustion). Submaximal exercise tests typically use heart-rate response to a less than exhaustive workload to predict maximal oxygen consumption. Many of the submaximal tests that are commonly administered are field tests and have a 10 to 20 percent error in the estimate. However, if the same test is administered two to three times over a year, then the exerciser will have a good estimate of his or her actual fitness level and the progress being made toward the

REMINDER: *Exercise testing is necessary, but results of these tests should be interpreted carefully. Results from the same test can be used to monitor changes in cardiorespiratory fitness level.*

training goals. A description of various submaximal exercise tests and other field tests can be found in Heyward (1991).

Caloric Cost of the Activity. Many people exercise to burn calories for the purpose of weight loss. While many pieces of modern exercise equipment have computer output of calories expended during the activity (e.g., stair climbing, bicycling, rowing), it may be helpful to understand how this number is determined and what it means. Caloric expenditure is estimated from the amount of oxygen that is consumed) measured by the method already described) during performane of the activity because oxygen is used to break down carbohydrate and fat during exercise. Increased oxygen consumption translates into more calories burned. For example, an exerciser during a typical 30-minutes workout would expend approximately 200 kilocalories (called "calories" in lay usage) depending on the intensity of the workout. For loss of body weight (i.e., body fat), ACSM recommends expending 1000 kilocalories per week with an optimal coal of 2000 kilocalories per week as health and fitness improve or permit (ACSM, 1995).

REMINDER: *Caloric cost on digital outputs on exercise equipment is simply an estimate that may vary depending on the skill and coordination of the exerciser.*

Is it necessary to directly measure each person? No. Estimates of caloric expenditure can be made from tables and/or equations. The ACSM equation for estimating caloric cost is: METs x 3.5 x body weight (kg) divided by 200 = kilocalories per minute, where MET means "metabolic equivalent" or 3.5 milliliters of oxygen per kilogram of body weight,

Table 4. MET Levels for Horizontal and Grade Walking

% Grade	mph=	1.7	2.0	2.5	3.0	3.4	3.75
0		2.3	2.5	2.9	3.3	3.6	3.9
2.5		2.9	3.2	3.8	4.3	4.8	5.2
5.0		3.5	3.9	4.6	5.4	5.9	6.5
7.5		4.1	4.6	5.5	6.4	7.1	7.8
10.0		4.6	5.3	6.3	7.4	8.3	9.1
12.5		5.2	6.0	7.2	8.5	9.5	10.4
15.0		5.8	6.6	8.1	9.5	10.6	11.7
17.5		6.4	7.3	8.9	10.5	11.8	12.9
20.0		7.0	8.0	9.8	11.6	13.0	14.2

Adapted from American College of Sports Medicine. (1991). ACSM's guidelines for exercise testing and prescription. Baltimore: Williams & Wilkins, p. 298.

Table 6. MET Levels for Stationary Bicycling

Body Weight (pounds)	Exercise Rate (watts)					
	50	75	100	125	150	175
110	5.1	6.9	8.6	10.3	12.0	13.7
132	4.3	5.7	7.1	8.6	10.0	11.4
154	3.7	4.9	6.1	7.3	8.6	9.8
176	3.2	4.3	5.4	6.4	7.5	8.6
198	2.9	3.8	4.8	5.7	6.7	7.6
220	2.6	3.4	4.3	5.1	6.0	6.9

Adapted from American College of Sports Medicine. (1991). *ACSM's guidelines for exercise testing and prescription.* Baltimore: Williams & Wilkins, p. 299.

Table 5. MET Levels for Horizontal and Grade Jogging/Running on the Treadmill

% Grade	MPH	5	6	7	8	9	10
0		8.6	10.2	11.7	13.3	14.8	16.3
2.5		9.5	11.2	12.9	14.7	16.3	18.0
5.0		10.3	12.3	14.1	16.1	17.9	19.7
7.5		11.2	13.3	15.3	17.4	19.4	
10.0		12.0	14.3	16.5	18.8		
12.5		12.9	15.4	17.7			
15.0		13.8	16.4	18.9			

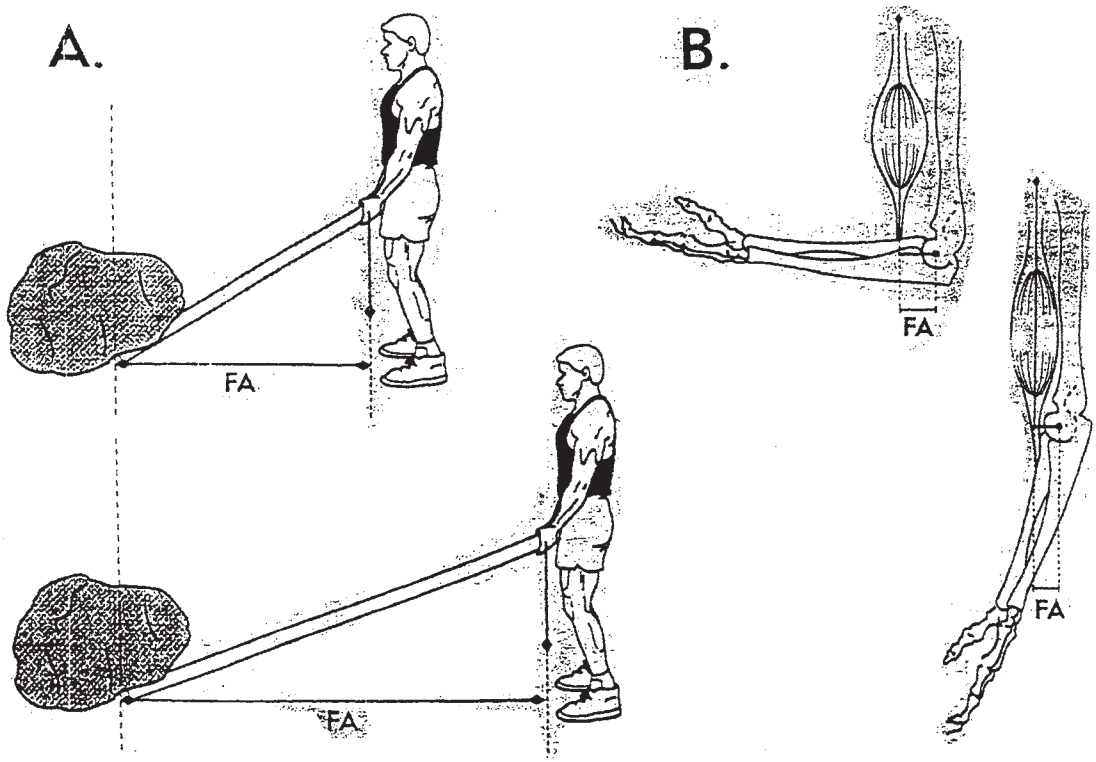
Adapted from American College of Sports Medicine. (1991). ACSM's guidelines for exercise testing and prescription. Baltimore: Williams & Wilkins, p. 299.

consumed per minute. If the MET value of the activity and the body weight of the exerciser is known, then caloric cost in kilocalories per minute can be calculated for each activity. MET values for common activities appear in table 3. Another rule of thumb for estimating caloric cost is that approximately 100 kilocalories are expended for each mile jogged or run. For walking, approximately 80 to 90 kilocalories are expended per mile. However, it is important to remember that the estimate of the caloric cost of exercise is influenced by individual differences in skill and coordination, as well as by the variable intensities at which each exercise is performed (ACSM, 1995).

REMINDER: *Professionals knowledgeable about metabolic equivalents can determine appropriate exercise workloads.*

Determining Exercise Workloads. How are metabolic equivalents used to prescribe exercise? This question can best be answered with the following example. Sue has taken an exercise test and learned that are maximum oxygen consumption 12 METS. She wants to determine her starting workload on the bicycle ergometer and the treadmill. How can she determine what the appropriate workloads are for these two pieces of exercise equipment without doing it by trial and error? She can do this by using MET tables (see tables 4,5, and 6) established by the American

Figure 1 Importance of the Length of the Force Arm



In (A), this person's ability to move the rock depends on the length of the force arm (FA). In the bottom picture of (A), the force arm is longer. Therefore, if the person applies the same amount of force in both situations, that force has a greater ability to cause rotation (torque) in the bottom picture because of the longer force arm. In (B), the muscles in the human body work in much the same way. Muscles have longer force arms at certain points in the range of motion. The force arm is longer in the top picture of (B) than in the bottom picture of (B). The muscle in the joint position depicted in the top picture, therefore, is better able to rotate the arm.

College of Sports Medicine (ACSM, 1991.

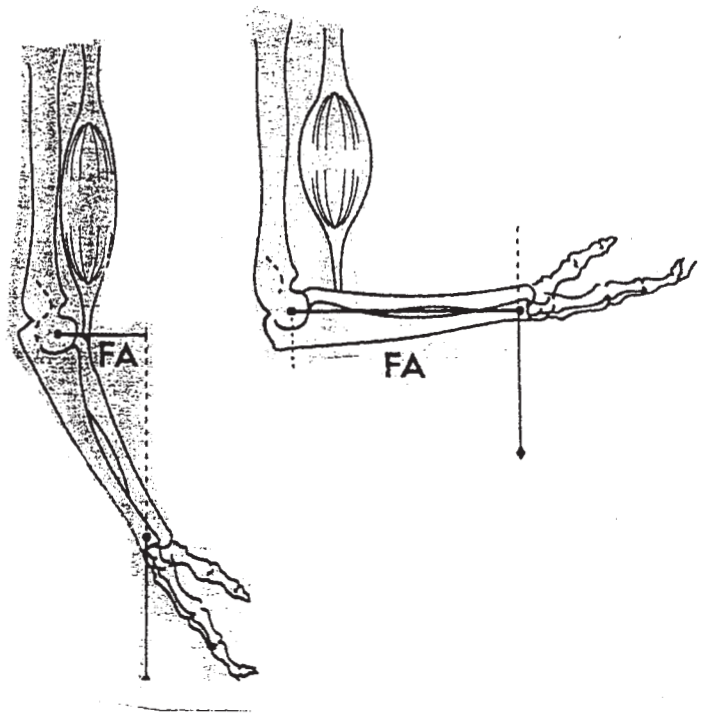
ACSM has established these tables to aid the exercise specialist in converting exercise intensity into workload when cycling on the bicycle ergometer and when walking or running on the treadmill Sue can use these tables to find her starting workload on each piece of equipment. For the walking, running and cycling tables, a choice must be made concerning the level of exercise. For example , the speed of the treadmill must be known in order to solve for the MET level of the activity. The pedaling frequency must be chosen to solve for the resistance that will be imposed on the bicycle flywheel either electronically or mechanically. Sue, who weights 60 kilograms (132 lbs), wants to work at 75 percent of her maximum capacity of 12 METs, which equals 9 METs. Using tables 4,5 and 6 (see appropriate MET levels in bold), Sue could walk at approximately 2.5 miles per hour on a 17.5 percent grade (8.9 METs) or 3.0 miles per hour on a 12.5 percent grade(8.5 METs), run at 5 miles per hour on a 0 percent grade on the treadmill (8.6 METs), or pedal at 125 watts (8.6 METs) to achieve her appropriate workout intensity. For further information, the reader should consult ACSM (1995), Flood (1995) and Ng (1995).

Muscular Training

As in the case of cardio-respiratory training, it is important to determine the goals of the program before beginning a muscular training program. These goals should be defined by two questions similar to the questions for cardio-respiratory training: (1) are you training for a specific skill, activity, or sport, or are you simply training to improve overall health and fitness, and (2) if training for a specific skill or s goal—power, endurance, strength, or flexibility? Again, the guidelines presented in table 2 are port, what is the muscular important regardless of the answers to these questions, but they should be varied depending on those answers. If the program aims for overall health and fitness, then balance should be maintained between power, endurance, strength, and flexibility. If training for a specific activity is the goal, then one of these may be emphasized more than the other. In order to individualize muscular training programs, the following five concerns should be addressed as well.

Specificity of Training Like cardio-respiratory training, muscular training should be specific to the demands of the activity. From a biomechanical perspective, the following factors should be considered:

Figure 2. How Orientation of the Body Segment Changes the Force Arm for Gravity



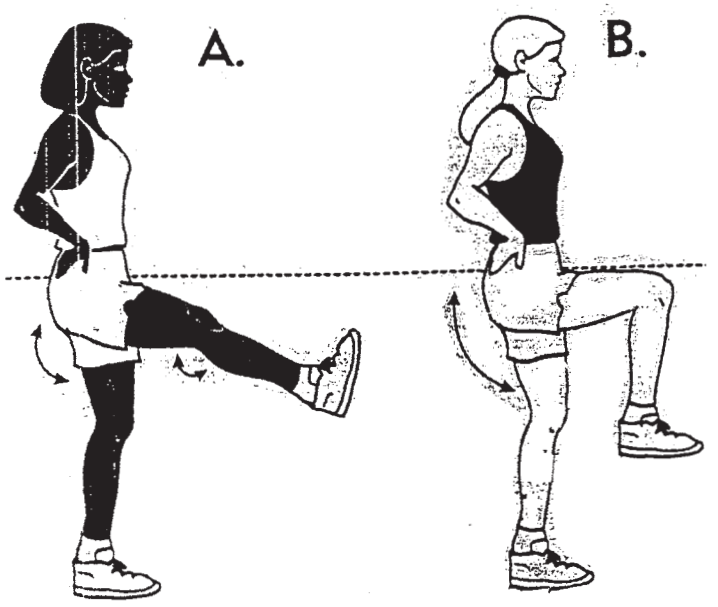
This factor allows the muscle to be strengthened differently throughout the range of motion. Gravity has a longer force arm in the picture on the right. Therefore, the muscle will have to work harder to overcome gravitational torque when the arm is in this position.

REMINDER: *Arrange lifts so that larger muscle groups are exercised first, review muscle actions to ensure balance between muscle groups during muscular training, and be cognizant of weak points in the range of motion.*

movement pattern, joint position, speed of movement, joint range of motion (ROM), and type of contraction (Baechle, 1994). Knowledge of the first three factors (movement pattern, joint position, and speed of movement) is important for replicating the body movements of the desired skill. For example, for the overhand throw it is best to train muscles in a situation requiring force application that replicates the exact joint actions that occur in the throw and that increases speed from initial joint position through the force application range. Slow, controlled weight-training exercises would not be as effective as replicating the skill in order to improve the force of the throw.

It is also necessary to understand and train for the specific type of contraction that occurs during the movement (ACSM, 1993; Baechle, 1994). Many people focus only on the concentric (shortening) actions of the muscles during the movement. However, many skills require the use of forceful eccentric (lengthening) and isometric (no change in the position) muscle actions to decelerate and stabilize body parts. Therefore, if the activity involves these types of muscular actions, training should include exercises that strengthen the muscles through the appropriate ROM or position for these actions. For example, during the overhand throw, it is appropriate to train the muscles that act concentrically during the throw (e.g., the shoulder flexors). However, you should also train eccentrically the shoulder extensors that act eccentrically to decelerate the arm after the ball is released.

Figure 3. Example of Passive Insufficiency

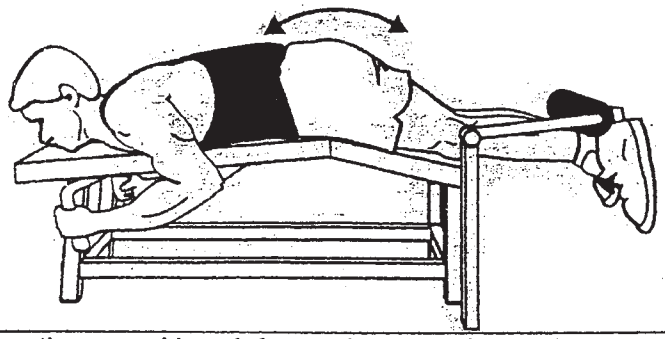


In (A), the hamstrings are being stretched across two joints, the hip and the knee, as indicated by the curved arrows. In (B), the hamstrings are being stretched only across the hip (hence, one arrow), and can stretch farther across the hip since they are not being stretched across the knee. The difference can be observed in the maximal amount of hip flexion; the thigh can be brought closer to the dotted horizontal line or moved vertically as shown in (B).

Weak-Link Principle. The weak link principle states that during execution of a lift or sports movement the greatest load falls on the weakest point of the movement, and overload occurs. This is the basis for the principle of muscular training known as exercise order (see table 2) (Wathen, 1994a). Smaller muscle groups tire before larger muscle groups. Therefore, exercises that use large, or multiple, muscle groups should be performed before exercises that use specific, small muscle groups. For example, squats or let presses should be performed before leg curls, leg extensions, and calf exercises.

In addition, care must be taken to prevent imbalance of muscles as well (Wathen,

Figure 4. Example of Active Insufficiency

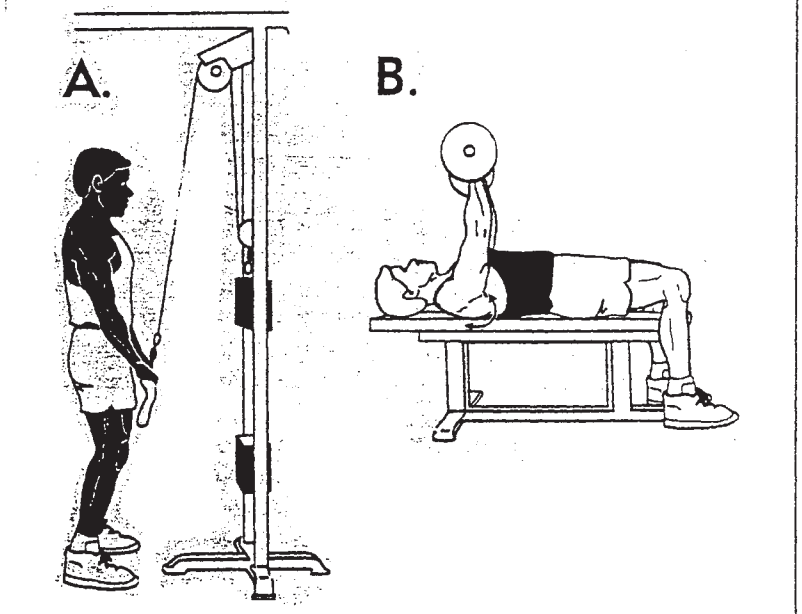


Because the curved bench forces the hamstrings to be stretched across the hip as indicated by the arrow, the hamstrings can contract more forcefully across the knee during knee flexion.

1994b). If an activity requires stabilization or neutralization of body parts by muscle groups other than the agonists (muscles initiating the movement), then training should be focused on these muscle groups as well. Inability to perform an exercise may not be due to weakness in the agonist muscles, but rather in the muscles that stabilize or neutralize the body part or undesired action. Imbalance between agonists and antagonists (muscles that slow down or control the movement) must also be avoided (e.g., the ankle plantar flexors, or calf muscles, should be three times stronger than the ankle dorsiflexors, the muscles on the front of the lower leg; Wathen, 1994b). Muscle imbalances may lead to injuries. While muscle balance is difficult to measure accurately, and complete discussion is discussion is beyond the scope of this paper (see Wathen, 1994b, for more detailed review of the muscles used during the exercise program will increase understanding of which muscle groups work opposite each other. A well-designed program should include exercises for all major muscle groups.

REMINDER: Careful attention should be given to controlling the weight of each lift. If the weights are thrown or bounced, then maximum resistance is not being placed on the muscle. It is important to gain an understanding of how joint positions, segment positions, and machines can change how hard a muscle works.

Figure 5. Example of Active Insufficiency



The long head of the triceps crosses the shoulder and the elbow. In (A), the long head is shortened across both joints, decreasing its ability to contract forcefully at either joint. In (B), the triceps extension exercise is performed in a lying position, where the long head is stretched across the shoulder joint, allowing it to contract more forcefully at the elbow joining during elbow extension.

an axis) at that joint position (Kreighbaum & Barthels,

1996). For example, the weakest joint position during elbow flexion occurs when the elbow is completely extended. During elbow flexion, the weight that can

Finally, at most joints there is a weak point within the ROM. This weak point occurs because the muscle(s) have a poor mechanical advantage for producing torque (i.e., the ability of a force to cause rotation about be handled in this extended position will determine the maximum weight that can be lifted. Therefore, the muscles will not be overloaded adequately during the middle ranges of motion.
These weak points in the ROM should be reviewed for each muscle group in the body so that the program can be organized to maximize strength throughout the ROM. For a review article that details and explains this concept, see Kulig, Andrews, and Hay (1984).

Motive and Resistive Forces and Torques. Forces can be divided into two categories: motive forces and resistive forces. Motive forces are those that *cause* the observed movement while resistive forces *oppose* the observed movement (Kreighbaum & Barthels, 1996). During muscular training exercises, muscular contraction and gravitational pull (i.e., weight of the barbell or machine) are the primary forces that must be considered. Muscle force and gravity can be both motive and resistive forces. It is important to be able to identify which role each is playing during any given exercise. The whole purpose of muscular training is to train the muscle, whether it is concentric (muscle is the motive force) or eccentric (muscle is the resistive force) training. Therefore, any motion that allows other forces to execute the movement should be avoided, because if this happens, training of the muscle is not maximal. This is why letting weights down slowly is emphasized; if the weight is dropped, gravity does the work instead of muscle and no eccentric training occurs. Rapid loading of the muscles by gravity is a technique commonly used in plyometric training, but because of safety considerations, this should be performed only under the supervision of a certified strength and conditioning professional.

Torque, the ability of a force to cause rotation about an axis, depends both on the magnitude of the force and on the orientation of the force to the axis. The perpendicular distance between the axis and the line of force is called the force arm. The larger this distance the more able the force is to cause rotation about the joint (figure 1). An understanding of how force arms change for gravity and muscles is necessary in order to modify exercises and maximize muscular training.

During free weight work, remember that gravity always acts downward. Therefore, as shown in figure 2, the orientation of the body segment in space changes the force arm for gravity, creating greater gravitational torque in certain positions (Harman 1994). The muscles then must work harder (generate more force) in these positions to overcome this greater resistance. It is important to check the machines that are being used to determine whether the force arm for the weight changes throughout the ROM of the exercise to maximize the muscle's workout (e.g. this occurs on variable resistance equipment such as Nautilus) (Harman 1994) If these concepts are understood, exercises can be modified to make them easier or more specific to the exerciser's training goals.

Multijoint Muscles. Many of the muscles in our body cross two or more joints (e.g., hamstrings, biceps, brachii, wrist muscles, etc.). This knowledge is very important because the position of the muscles across one joint in part determines the function of the muscle at the other joint. Two terms describe this phenomenon: active insufficiency and passive insufficiency (Kreighbaum & Barthels, 1996). Passive insufficiency is the inability of a multijoint muscle to *stretch* sufficiently to allow full ROM across both joints. In figure 3, the individual cannot flex the hip as much with knee extended as with the knee flexed because of passive phenomenon may reduce

joint flexibility in some positions.

Active insufficiency is the inability of a multijoint muscle to *contract* maximally across both joints. A multijoint muscle is most effective if the muscle is stretched across the joint at which movement is not taking place. In figure 4, the hamstrings produce stronger knee flexion when the hip is slightly flexed (i.e., he hamstrings are slightly stretched across the hip joint). This is why most leg curl machines today are curved to place the hip in slight flexion for maximal force production during knee flexion. In figure 5, the active insufficiency of the long head of the triceps brachii in the triceps pushdown makes it a harder exercise than the triceps extension exercise performed in a lying position. If the goal of the exercise program is total triceps conditioning, then the triceps extension in the lying position is the better exercise. If the goal is to strengthen only the lateral and medial heads of the triceps, then the triceps pushdown is a better exercise because it isolates these two muscles.

REMINDER: *Knowledge of all multijoint muscles and how these muscles work across joints can help in proper selection of exercises to meet the goals of each individual's program.*

Anthropometry and Alignment. Anthropometry is defined as "the measurement of size, shape, and proportions of the human body and its segments: (Kreighbaum & Barthels, 1996, p. 42). Accommodating individual differences in anthropometrics (e.g. differences in arm lengths, torso lengths, shoulder breadth, etc.) is very important when using weight machines for muscular training. The effectiveness of the training depends on proper alignment of the joint axis of the body with the point of rotation on the machine. Improper alignment occurs when the machine is too small or too large, or when the individual fails to make the appropriate adjustments to the seat, lever arm, or other parts. Improper alignment may decrease the training effect by altering the movement pattern, which can reduce specificity of training and negate the variable resistance benefit. I may also increase risk of injury by creating dangerous torques and shear forces on the joints and muscles. This increased risk of injury can result from poor alignment in free weight exercises as well. For example, when performing the squat exercise, the knees should stay directly over the feet. If the knees move to either side, the line of gravitational force causes the femur to have a tendency to slide off the tibia or rotate to one side, placing dangerous successes on the ligaments of the knee. You should constantly check your technique to ensure proper alignment, whether using a machine or free weights.

Ten reminders have been presented to assist exercise leaders in individualizing new exercise programs or rejuvenating routine workouts. It is important to individualize exercise whether supervising one or many exercisers. Through properly individualized programs, exercise goals can be safely and comfortably achieved. The cliché, "No pain, no gain," should not be perpetuated. Pain is the body's signal that injury is occurring. The feeling of fatigue and the "burn" that individuals feel when exercising should not be confused with pain. A good rule of thumb for a general health and fitness program is that the exerciser should feel refreshed and recovered from exercise one hour after completing the workout. The focus on exercise today is on the quality of the workout, not the quantity. By following the reminders that have been presented, exercise may help to prevent injuries, to maximize results from the

REMINDER: *To avoid injury and maximize training benefits, give careful attention to body placement within weight machines or to correct body mechanics when using free weights.*

time spent exercising, and to make the activity enjoyable for the exerciser.

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April 1998 JOPERD
Vol. 69 No.

A Position Paper and Literature Review of

Youth Resistance Training

NATIONAL STRENGTH AND CONDITIONING ASSOCIATION

Youth Resistance Training: Position Statement Paper and Literature Review

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Position Statement

The popularity of resistance training among prepubescents and adolescents has increased, and the qualified acceptance of youth resistance training by professional organizations is becoming universal (4, 6, 7, 91). Despite the old belief about youth resistance training being ineffective and unsafe, resistance training is now recognized as an important component of youth fitness programs, health promotion objectives, and injury prevention strategies (5, 34).

The National Strength and Conditioning Association (NSCA) recognizes and supports the premise that many of the benefits associated with adult resistance training programs are attainable by prepubescents and adolescents who follow age-specific resistance training guidelines. The NSCA has based this position statement paper on a comprehensive analysis of the pertinent scientific evidence regarding the anatomical, physiological, and psychosocial effects of youth resistance training. A committee of 11 professionals with clinical and research expertise on issues related to youth resistance training contributed to this paper. Committee members reviewed and revised this paper prior to the formal endorsement by the NSCA.

The focus of this paper is on the benefits and concerns associated with regular, moderate intensity youth resistance training programs. The term *youth* is broadly defined as the period of life that includes both the prepubescent and adolescent years. Resistance training is defined as a specialized form of conditioning that is used to increase one's ability to exert or resist force (7). Resistance training is distinct from the competitive sports of powerlifting and weightlifting in which individuals regularly train at high intensities and attempt to lift maximal amounts of weight.

This paper builds on previous recommendations from the NSCA and should serve as the prevailing statement on youth resistance training. It is the current position of the NSCA that:

1. A properly designed and supervised resistance training program is safe for children.
2. A properly designed and supervised resistance training program can increase the strength of children.
3. A properly designed and supervised resistance training program can help to enhance the motor fitness skills and sports performance of children.
4. A properly designed and supervised resistance training program can help to prevent injuries in youth sports and recreational activities.
5. A properly designed and supervised resistance training program can help to improve the psychosocial well-being of children.
6. A properly designed and supervised resistance training program can enhance the overall health of children.

Literature Review

■ Risks Associated With Youth Resistance Training

During the 1970s and 1980s, one of the reasons that resistance training was not often recommended for the immature athlete was the presumed high risk of injury associated with this type of exercise. In part, the widespread fear of injury associated with youth resistance training during this era stemmed from data gathered by the National Electronic Injury Surveillance System (NEISS) of the U.S. Consumer Product Safety Commission. NEISS uses data from various hospital emergency rooms to make nationwide projections of the total number of injuries related to exercises and equipment.

It was reported (130) in 1979 that over half of the 35,512 weightlifting injuries requiring emergency room treatment involved 10- to 19-year-olds, and a 1987 report (131) revealed that 8,590 children ages 14 and under were taken to the emergency room because of injuries related to weightlifting. The NEISS reports, however, did not distinguish between injuries associated with resistance training and those associated with the competitive sports of powerlifting and weightlifting. Moreover, since the NEISS data were based on injuries that patients said were related to weightlifting exercises and equipment, it is incorrect to conclude the injuries were indeed caused by such activities and devices.

The most common resistance training injuries in the NEISS reports were sprains and strains, although more serious injuries such as epiphyseal fractures and lumbosacral injuries have been noted in the literature (100, 101). However, nationwide projections of emergency room visits and case series reports of injured young athletes provide limited information on the predisposing factors of these injuries. In fact many of the reported injuries were actually caused by poor training, excessive loading, poorly designed equipment, free access to the equipment, or lack of qualified adult supervision. Although these findings indicate that the unsupervised use of heavy resistive loads in training or competition may be injurious, it is misleading to generalize these findings to properly designed and closely supervised youth resistance training programs.

Generally, the risk of injury associated with resistance training is similar for children and adults. But a traditional area of concern in children is the potential for training-induced damage to the epiphysis, or growth plate, of their long bones. The epiphysis is the weak link in the young skeleton because the strength of cartilage is less than that of bone (20). In some cases, damage to this area of the bone could cause the epiphysis to fuse, resulting in limb deformity and/or the cessation of limb growth (77, 89, 115).

A few retrospective case reports have noted epiphyseal plate fractures during adolescence (11, 19, 61, 75, 104, 106); however, most of these injuries were due to improper lifting techniques, maximal lifts, or lack of qualified adult supervision. Technique related injuries often involved the aggressive use of free weights in such exercises as the deadlift, bench press, and overhead press (21, 61, 106), although injuries involving weight machines are also possible (19).

Both prepubescents and adolescents are susceptible to growth plate injuries, yet it appears that the potential for this injury in a prepubescent child may be less than in an adolescent because the growth plates may actually be stronger and more resistant to sheering type forces in the younger child (90). Growth plate fractures have not been reported in any prospective resistance training studies that were characterized by appropriately prescribed training regimens and competent instruction.

The potential for repetitive-use soft-tissue injuries is also of concern when children undergo resistance training. This type of injury does not often result in emergency room visits or even physician visits, so the incidence of these injuries is more difficult to determine. Nevertheless, several retrospective studies on adolescents have associated lower back soft-tissue injuries with resistance training. In fact, lumbosacral pain was found to be the most frequent injury in high school athletes who participated in resistance training programs (19, 101).

In one report (19), however, a majority of the injuries to the lumbar spine may be attributable to the improper use of a device designed to improve vertical jump. A study of adolescent powerlifters who presumably trained with maximal or near-maximal resistances revealed that 50% of reported injuries were to the lower back, 18% to the upper extremity, 17% to the lower extremity, and 14% to the trunk (21). Although these studies involved adolescents, the potential for similar injuries in prepubescents should be recognized. Based on available evidence and clinical observations, training-induced injuries to the lower back seem to pose a noteworthy concern for clinicians and coaches (73, 84, 108, 135).

Prospective studies on resistance training in children indicate a low risk of injury. In most of the published studies, no overt clinical injuries having been reported during the resistance training program. Although various training modalities and a variety of training regimens have been used, all the training programs were closely supervised and appropriately prescribed to ensure that the program was matched to the initial capacity of the child.

Only two published studies have reported resistance training injuries in children: a shoulder strain that resolved within 1 week of rest (99) and an undefined "minor" injury (22). The former study (99) found no evidence of either musculoskeletal injury (measured by biphasic scintigraphy) or muscle necrosis (determined by serum creatine phosphokinase levels) following 14 weeks of progressive resistance training. Generally, the risk of injury consequent to resistance training programs is very low, provided that appropriate training guidelines are followed.

Resistance training in children, as with most physical activities, does carry some degree of inherent risk of musculoskeletal injury. Yet this risk is no greater than that in many other sports or recreational activities in which children regularly participate. In one prospective study that evaluated the incidence of sports related injuries in schoolchildren over a 1-year period (144), resistance training resulted in 0.7% of the 1,576 reported injuries whereas football, basketball, and soccer resulted in approximately 19, 15, and 2%, respectively, of all injuries. When the data were evaluated in terms of injury to participant ratio in school team sports, football (28%), wrestling (16.4%), and gymnastics (13%) were at the top of the list.

A retrospective evaluation of resistance training and weightlifting injuries incurred primarily by 13- to 16-year-olds revealed that both resistance training and weightlifting are markedly safer than many other sports and activities (65). Moreover, the results of that study indicated that the rate of injury for weightlifting was lower than for resistance training. In part, this may be explained by the fact that weightlifting is typically characterized by knowledgeable coaching and the gradual progression of training loads which are required to learn the proper technique of advanced multijoint lifts.

In some countries, children as young as 8 years of age are taught advanced multijoint lifts (79), although weight is not added to the bar until they reach the age of 12 or 13. The potential for injury during the performance of multijoint free-weight exercises should not be overlooked, however (101).

There is the potential for a catastrophic injury if safety standards for youth resistance training—qualified supervision, safe equipment, and age-specific training guidelines—are not followed (60). One case study (56) reported a 9-year-old boy died when a barbell rolled off a bench press support and fell on his chest. This fatality underscores the importance of providing close adult supervision and safe training equipment for all youth resistance training programs.

Any exercise or activity for children carries risks as well as benefits. Although resistance training injuries will occur, the risk can be minimized by close adult supervision, proper instruction, appropriate program design, and careful selection of training equipment. There are no justifiable safety reasons to preclude prepubescents or adolescents from participating in a properly designed and supervised resistance training program.

■ Effectiveness of Youth Resistance Training

In the past it was presumed that training-induced strength gains during prepubescence were not possible because of insufficient levels of circulating androgens (3). The results from a few studies (37, 69, 133) were believed to support this claim, despite the fact that methodological limitations may have influenced the results. A majority of the scientific evidence within the past 10 years, however, strongly suggests that children can significantly increase their strength—above and beyond growth and maturation—provided that the resistance training program is of sufficient duration and intensity (22, 35, 44, 46, 48, 54, 72, 85, 96, 98, 107, 111, 112, 114, 119, 137, 139, 140, 141).

During childhood, many physiological changes related to growth and development are occurring at a rapid rate. Muscular strength, defined as the maximal force a muscle or muscle group can generate, normally increases from childhood through the early teenage years, at which time strength accelerates markedly in boys and plateaus in girls (83). Thus strength changes from a low volume (sets x repetitions x load), short-duration training program may not be distinguishable from gains due to normal growth and development. In order to differentiate training adaptations from those of normal growth and development, it is apparent that a prolonged period of time and

an adequate training stimulus are required.

A recent meta-analysis on resistance training and children (33), as well as scientific review papers (14, 15, 41, 51, 78, 89, 108, 135, 136) and clinical observations (9, 90), have reported that well-designed resistance training programs can enhance the strength of prepubescents and adolescents beyond what is normally due to growth and development. Children as young as age 6 have benefited from resistance training (48), and studies have lasted up to 9 months (119).

A wide variety of progressive resistance training programs, from 1 set of 10 repetitions (140) to 5 sets of 15 repetitions (72), have proven efficacious. Training modalities have included weight machines, both adult (35, 85, 96, 98, 112, 133, 141) and child size (44, 46, 140), free weights (22, 35, 98, 107, 111), hydraulic machines (137), pneumatic machines (112), isometric contractions (54, 69, 93), wrestling drills (29), modified pull-ups (10), and calisthenics (48, 114).

Comparative Trainability

Strength gains up to 74% have been reported (46) following 8 weeks of progressive resistance training, although gains of roughly 30 to 50% are typically observed following short-term (8 to 20 weeks) resistance training programs in children. There is no clear evidence of any major difference in strength, as measured by selected strength tests, between prepubescent boys and girls (13, 108). Reported relative (percent improvement) strength gains during prepubescence are equal to if not greater than the relative gains observed during adolescence (93, 96, 139).

In terms of absolute strength, it appears that adolescents make greater gains than prepubescents (108, 133), and adults make greater gains than young adolescents (107), although some findings are at variance with this suggestion (139). The issue of whether the training-induced changes observed in prepubescents and adolescents should be compared on a relative or absolute basis is debatable (108).

Persistence of Training-Induced Strength Gains

The evaluation of strength changes in children following the temporary or permanent reduction or withdrawal of a training stimulus (referred to as detraining) is complicated by the concomitant growth related strength increases during the same time period (14). Few studies have evaluated the effects of detraining in adults, and relative information on younger populations is even more scarce. Nevertheless, limited data suggest that training-induced strength gains in children are impermanent and tend to regress toward untrained control group values during a detraining period (17, 44, 72, 112). The precise nature of the detraining response and the physiological adaptations that occur during this period remain uncertain, although changes in neuromuscular functioning would appear to play a significant role at least during prepubescence.

Only a few studies have evaluated the effects of training frequency on strength maintenance in children. Following 20 weeks of progressive resistance training, a once-weekly maintenance training program was not enough to maintain the training-induced strength gains in prepubescent boys (17). Conversely, another study found that for a group of pubescent male athletes (35), a 1-day-a-week maintenance program was just as sufficient as a 2-day-a-week maintenance program in retaining the strength gains made after 12 weeks of resistance training. Clearly, more information is required before specific maintenance training recommendations can be made.

Program Evaluation and Testing

Factors such as previous exercise experience, program design, specificity of testing and training, choice of equipment, quality of instruction, and whether or not the learning effect was controlled for in the study can directly influence the degree of measured strength change. In addition, the methods of evaluating changes in muscular strength consequent to training are noteworthy considerations. In several studies the subjects were trained and tested using different modalities (96, 112, 137), and in many of the published reports, strength changes were evaluated by relatively high-repetition maximum (RM) values (e.g., 10-RM) (46, 140). Except for a few studies (35, 95, 98), strength changes were rarely evaluated by maximal load lifting (i.e., 1-RM testing) on the equipment used in training.

Many clinicians and researchers have not used 1-RM testing to evaluate training-induced changes in muscular strength because of the presumption that high intensity loading may cause structural damage in children. Thus the maximal force production capabilities of children have not been directly evaluated in most studies. Yet no injuries have been reported in prospective studies that used adequate warm-up periods, appropriate progression of loads, close and experienced supervision, and critical-

ly chosen maximal strength tests (1-RM performance lifts, maximal isometric tests, and maximal isokinetic tests) to evaluate resistance-training-induced changes in children (35, 95, 98).

The examination of the relative safety of supervised 1-RM testing in laboratory settings performed only to evaluate training-induced changes in muscular strength should be supported philosophically. Most of the forces that children are exposed to in sports and recreational activities are likely to be greater in both duration and magnitude of exposure than competently supervised and properly performed maximal strength tests. Conversely, under no circumstances should children be subjected to unsupervised and poorly performed 1-RM testing (e.g., inadequate progression of loading and poor lifting technique) or chronic maximum resistance training (e.g., weightlifting training without periodization), due to the real risk of injury (100, 101, 142).

Physiological Mechanisms for Strength Development

In prepubescents it appears that training-induced strength gains are more related to neural mechanisms than to hypertrophic factors (78, 95, 98, 108). Without adequate levels of circulating testosterone to stimulate increases in muscle size, prepubescents apparently have more difficulty increasing their muscle mass consequent to a resistance training program (up to 20 weeks) as compared to older populations (95, 98, 133). However, since some findings are at variance with this suggestion (53, 88), it cannot be stated a priori that resistance training will not increase the muscle mass of prepubescents. It is possible that more intensive training programs and advanced measuring techniques (e.g., computerized imaging) may be needed to distinguish the effects of training on fat free mass from any expected gains due to growth and maturation.

Without corresponding increases in fat free mass, it appears that neural adaptations—a trend toward increased motor unit activation and changes in motor unit coordination, recruitment, and firing (95, 98)—and possibly intrinsic muscle adaptations, as evidenced by increases in twitch torque (98), are primarily responsible for training-induced strength gains during prepubescence.

Improvements in motor skill performance and the coordination of the involved muscle groups may also play a significant role, since measured increases in training-induced strength are typically greater than changes in neuromuscular activation (95, 98). In support of these findings, several training studies (46, 85, 95, 98, 107, 137) have reported significant improvements in strength during prepubescence without corresponding increases in gross limb morphology, when compared to similar control groups.

During puberty, testicular testosterone secretion is associated with considerable increases in fat-free mass (78, 82, 113). Training-induced strength gains during and after puberty in males may therefore be associated with changes in hypertrophic factors, since hormonal influences on muscle hypertrophy would be operant (78). Lower levels of androgens in females limit the magnitude of training-induced increases in muscle hypertrophy (108). Other hormone and growth factors (e.g., growth hormone and insulin-like growth factors) may be at least partly responsible for muscle development in females (76).

■ Motor Fitness Skills and Sports Performance

Improvements in selected motor fitness skills have been observed in children following resistance training programs (48, 93, 137, 141). Several studies have reported increases in the long jump or vertical jump (48, 93, 137, 141), and one study (141) noted increases in 30-meter dash time and agility run time. In contrast, two studies (22, 46) have reported significant increases in strength without concomitant improvements in selected motor performance skills after several weeks of progressive resistance training.

Since the effects of resistance training depend on the duration, frequency, speed, and volume of the training stimulus, confounding variables in the program design may partly explain these inconsistent findings. Moreover, the effects of resistance training on motor fitness skills must be distinguished from those associated with growth and maturation.

The principle of training specificity must be considered when evaluating the effects of resistance training on selected motor fitness skills. It appears that training adaptations in children are rather specific to the movement pattern, velocity of movement, contraction type, and contraction force (64). The specificity of training and possible transfer to related activities was observed in 249 females, ages 7 to 19, who participated in a 5-week training program (93). They trained for a particular test—sprint acceleration, vertical jump, or isometric strength—by either running, jumping, or performing isometrics. Regardless of age,

the greatest improvements were made in the activity for which the subjects trained, although some degree of transfer to nonspecific movements was noted. As previously observed in adults (109), it appears that the major training adaptations in children are exercise-specific.

The potential for resistance training to enhance sports performance in children seems reasonable because many sports in which children participate have a significant strength or power component. Moreover, if stretching exercises are part of the resistance training program, flexibility has been shown to improve significantly (114, 137). Comments from parents whose children have participated in a resistance training program suggest that resistance training enhances athletic ability (41, 137).

Scientific evaluations of this observation are difficult to make because athletic performance is such a multivariate gestalt (78). There have not been any long-term investigations on the effects of a comprehensive preseason resistance training program on improved sports performance in children. This information would be beneficial, as it would enable a better understanding of the effects of resistance training on youth sports performance. It would also help evaluate the potential for carryover into adulthood.

Two studies (12, 23) have reported favorable changes in swim performance in age-group swimmers, and another study (97) has demonstrated significant improvements in strength and selected gymnastic events in prepubescent girls following a resistance training program. Conversely, one short-term isometric training program did not improve swim speed in 7- to 17-year-old swimmers (2), and a resistance training program, as compared to basketball practice, did not significantly influence selected basketball skills in 14- and 15-year-old boys (50).

Conclusions as to the effects of resistance training on sports performance during prepubescence and adolescence are equivocal. Collectively, however, limited direct and indirect evidence, as well as observations on older populations (49, 145), suggest that a common-sense sport-specific resistance training program will result in some degree of improvement in athletic performance. It would seem reasonable to curtail preseason and inseason practice sessions to allow time for sport-preparatory resistance training, provided that the training program is competently supervised, progressive, and of sufficient duration and intensity. Since children cannot "play" themselves into shape, one of the greatest benefits of youth resistance training may be its ability to better prepare them for participation in sports and recreational activities.

■ Prevention of Injuries

The popularity of sports participation over the last 20 years by children in this country has grown enormously. Approximately 30 million children (roughly 50% of the boys and 25% of the girls) play competitive organized sports, and many others participate in community-based sport programs. Along with this increase in sports participation have come numerous reports of injuries to ill-prepared and improperly trained young athletes (28, 94). Appropriately designed and supervised resistance training programs may help prevent such injuries.

Resistance training appears to be an effective injury-prevention strategy for adults, and similar mechanisms may help decrease the prevalence of injury in youth sports (27, 103). The mechanisms by which improving muscle strength might prevent or lessen the severity of an injury include the strengthening of supporting structures (i.e., ligaments, tendons, and bones) (31, 118, 123), the enhanced ability of a trained muscle to absorb more energy prior to failure (55), and the development of muscle balance around a specific joint (67). A year-round strength training program was found to decrease the incidence of injuries in college soccer players (80), and the elimination of muscle imbalances in college football players decreased the incidence and recurrence of hamstring injuries (67).

Only a few studies have demonstrated a decreased injury rate in adolescents who have undergone resistance training (24, 38, 68). A preseason conditioning program that included resistance training led to a decrease in the number and severity of injuries in high school football players (24). Similarly, resistance training decreased the incidence of shoulder problems in teenage swimmers (38) and older athletes (66).

In one report involving high school male and female athletes, the injury rate for those who performed resistance training was 26.2%, compared to 72.4% for athletes who did not perform resistance training (68). Furthermore, the time required for rehabilitation was only 2.02 days for the former group versus 4.82 days for the latter group. Even though a motivated athlete who is injured may be more likely to return to practice early and endure some

p. . he or she may also be used more in competition and thereby risk further injury.

Although it is tempting to generalize these positive findings to prepubescents, the differences in quality and quantity of sport training, degrees of aggressiveness and competition, and participation rates in contact and noncontact sports should also be considered (16).

Moreover, the addition of resistance training to the total exercise picture, which includes free play as well as organized sports, should be carefully considered because resistance training adds to the chronic, repetitive stress placed on the young musculoskeletal system. Some children with a relatively immature musculoskeletal system may not be able to tolerate the same amount of exercise that most of their peers in the same athletic program can tolerate. Their biologic uniqueness results in stress failure syndromes manifested by a variety of conditions including tendinitis, stress fractures, and juvenile osteochondritis dessicans (28, 94).

Because of the interindividual variability in stress tolerance, each child must be treated as an individual and observed for signs of incipient stress failure syndromes that would require a modification in frequency, volume, intensity, and progression of training. Through an awareness of this variability in children of the same age in their ability to tolerate stress, many of these stress failure syndromes can be prevented.

Resistance training programs should not simply be added to children's exercise regimens, which may already include several hours of free play and sport-specific training. Rather, youth resistance training should be incorporated into a periodized conditioning program that va in volume and intensity throughout the year (121). Correctable risk factors (e.g., muscle imbalances, inflexibility, poor physical condition) should be identified so that coaches and clinicians can address each child's specific needs. In some instances it may be necessary for young athletes to reduce their sport involvement to allow time for preparatory conditioning.

■ Psychosocial Effects

The potential impact of youth resistance training on psychosocial variables is sometimes overlooked. Data from adult studies suggest that the effects of resistance training extend beyond physical measures and include improvements in mental health and well-being (40, 42). Although it is reasonable to assume the same would be true for children who participate in resistance training programs, one must be cautious about extending such observations to children because of their psychological immaturity as compared to adults.

Data from self-reported psychometric measurements demonstrate that adults who participated in a resistance training program scored significantly higher than controls on various measures of self-concept (self-image) (74, 120, 125, 126), self-esteem (36, 87, 127), and body cathexis (feelings toward one's own body) (87). In one study (128), an inverse association between pretest measures of body cathexis, self-concept, and neuroticism, and global self-concept change, suggested that adults who began resistance training with a relatively poor body attitude tended to make the greatest improvements. A similar study (129) noted that novices reported significantly greater gains in body satisfaction than persons a previous resistance training experience.

Unfortunately, the acute program variables were not defined in many of these reports, thus the type of strength training program that will most likely enhance psychosocial well-being remains hypothetical.

Empirical evidence suggests that resistance training may have a positive influence on the psychosocial well-being of children, yet research findings are limited (7, 42, 91, 99). Clinicians have noted that the socialization and mental discipline exhibited by prepubescent boys who performed resistance training are similar to those of team-sport participants (99), and parents of prepubescents who perform resistance training have observed that their children are more likely to do their homework and household chores following resistance training (41, 137). Moreover, it was found that children's attitudes toward physical education, physical fitness, and lifelong exercise improved following a conditioning program that included resistance training (140).

One study involving untrained adolescent girls noted improvements in self-efficacy and general self-esteem following a 12-week resistance training program (70). Conversely, an 8-week study of prepubescent boys and girls who participated in resistance training reported no significant changes in self-concept or self-efficacy, although ceiling effects in both measures may have precluded significant results (47). These findings support the contention that the psychological benefits of resistance training may depend on the intensity and duration of training, and may be most apparent in children who begin training with below average measures of strength and psychosocial

well-being (47). There is not enough scientific evidence to state unequivocally that resistance training will have a positive effect on the psychosocial well-being of prepubescents and adolescents.

Participation in physical activity can enhance character development and psychological well-being (26, 59). If appropriate resistance training guidelines are followed, and if children are encouraged to embrace self-improvement and feel good about their performances, the positive psychosocial effects of resistance training programs may indeed be comparable to those of other sports and recreational activities (42). Conversely, overzealous coaching and excessive pressure to perform at a level beyond one's capabilities can have a negative effect on some children who are emotionally and psychologically vulnerable (26, 59).

■ Health Related Benefits

Children should be encouraged to participate in daily physical activity in order to establish good health habits at an early age (57, 110). Ideally, at least half of a child's free time should be devoted to sports and other physical activities in order to improve the fitness components of strength, endurance, flexibility, and agility. Although good health habits developed during childhood do not always track into adulthood, their potential positive influence on the adult lifestyle should be recognized. In order to realize all of the potential physical and psychosocial health benefits of youth resistance training, coaches and instructors must appreciate the psychological immaturity and physical uniqueness of children.

Health should not be defined as the mere absence of disease, yet an operational definition of health, as applied to children, is elusive because there is no real consensus on the behaviors required to achieve optimal health. Nevertheless, behaviors and exposures that increase the acquisition of health associated characteristics (e.g., improvements in growth pattern, blood lipid profile, blood pressure, body composition, and psychological well-being) may be deemed desirable for children, whereas overall health may be reduced if unfavorable degrees of these characteristics are present. The relative impact of differing combinations of health associated characteristics on children's overall health is not known. Although it is tempting to extrapolate the findings from adult studies to children, it may be that what is deemed healthy for an adult may not necessarily be so for a child.

There is limited support in the current research for the utility of youth resistance training in enhancing health associated characteristics. Nevertheless, there is some support for the contention that children's overall health is likely to improve rather than be adversely affected by resistance training.

Although the acute blood pressure response to lifting weights is reportedly similar between children and adults (92), blackouts and chronic hypertension—which have been reported in adult competitive weightlifters (30) as well as adult athletes who overtrain (71)—have not been reported in prepubescents (46, 99, 111) or adolescents (63) following short-term (8 to 12 weeks) resistance training programs. Submaximal resistance training has in fact been shown to decrease the blood pressure of hypertensive adolescents (63), and low intensity/high repetition resistance training has been recommended for hypertensive adolescents who wish to undertake this type of training (143).

Despite the old myth that resistance training will stunt the statural growth of children, current observations indicate that youth resistance training (up to 20 weeks) will not have an adverse effect on growth patterns (46, 98, 107, 114, 133, 137). If age-specific physical activity guidelines are followed and nutritional recommendations (e.g., adequate calcium) are adhered to, physical activity, including resistance training, may have a favorable influence on growth at any stage of development but will not affect the genotypic maximum (8, 39).

Resistance training has been found to enhance the bone mineral density of adults (1, 62, 116), and some evidence, though not all (18), suggests that resistance training may be an effective stimulus for bone mineralization in children (31, 32, 81, 132). It seems prudent for children who are at risk for osteopenia or osteoporosis to incorporate some form of resistance training into their exercise regimen. Although peak bone mass is strongly influenced by genetics, nonhereditary factors such as exercise and proper nutrition can be important osteogenic stimuli (117). Too much exercise, however, may actually result in bone loss and an increased susceptibility to stress fractures (25, 134).

Since the prevalence of childhood obesity in the U.S. continues to increase (58), the potential influence of resistance training on body composition is an important health concern. A few studies on prepubescents have reported a decrease in fatness, as measured by skinfold thickness, following resistance training (46, 107, 114). However, a majority of the

data suggests that resistance training will not significantly affect the body composition of prepubescents (85, 95, 98, 111, 133, 137). The body composition of adolescent boys is more likely to be influenced by resistance training because of hormonal influences on muscle hypertrophy.

Although the issue of childhood obesity is complex (105), resistance training at moderate intensities and high repetitions, combined with aerobic exercise, may be the ideal solution for long-term fat loss and weight maintenance. Resistance training programs characterized by moderate loads and a high number of repetitions have also been found to have a favorable influence on the blood lipid profile of prepubescents (138), and similar findings have been reported in adolescents (52).

As noted earlier, psychosocial benefits may be realized from youth resistance training programs (42). If the program is well designed and supervised by qualified adults who appreciate the importance of having fun, resistance training may offer socialization and related benefits that are comparable to those gained from participation in team sports. The instructional period affords coaches the opportunity to educate children about the benefits of a healthy lifestyle through regular training, good nutrition, and adequate sleep; it also increases the likelihood that children will master new skills. Youth resistance training provides an opportunity for virtually all participants to be continually challenged and to feel good about their successes.

Furthermore, if the program is appropriate for the child's age and maturation, it may foster favorable attitudes toward fitness and lifelong exercise. Young athletes who increase their strength by [illegible]ng seem better prepared to tolerate [illegible]nes [illegible] demands imposed on their immature [illegible] systems. Although specu[illegible] dren are stronger and more powe[illegible] more likely to succeed in sports, and th[illegible] are more inclined to value the physical a[illegible] psychosocial benefits of lifelong exercise. Conversely, inappropriate [illegible]thods and unethical training practices may lead to the abuse of performance enhancing drugs (45, 86, 122), eating disorders (43), burnout (59), and other adverse consequences (124).

There is not enough evidence to determine the extent of improvements, if any, in subjective energy level, sleep patterns, emotional maturity, immune function, nutritional status, or cognitive performance. Probably these characteristics would either be favorably altered or at least not unfavorably influenced by resistance training, provided the program were properly designed, fun for children, and rewarding.

■ Recommended Youth Resistance Training Guidelines

Prerequisite to the development and administration of safe and effective youth resistance training programs is an understanding of established training principles and an appreciation for the physical and emotional maturity level of children. In order to begin resistance training, a child must be mentally and emotionally ready to comply with coaching instructions and undergo the stress of a training program. In general, if a child is ready for participation in sports, he or she is ready for some type of resistance training. A medical examination is desirable, though not mandatory, for apparently healthy children. But a medical examination is recommended for children with known or suspected health problems.

Since the goals of a resistance training program are specific to each child's needs, resistance training programs will differ. Various combinations of program variables have proven safe and effective for children as long as program developers use scientific information, established training principles, and common sense (77, 102). All exercises must be performed using the correct technique, and the ratio of resistance training to rest periods must be carefully monitored to ensure that each child is tolerating the prescribed regimen.

The ideal approach is to incorporate resistance training into a periodized conditioning program in which the volume and intensity of training changes throughout the year. Instructors must recognize the different maturation rates of children and be aware of the genetic predispositions for physical development. Children must not be treated as miniature adults, nor should adult exercise guidelines and training philosophies be imposed on children.

Trained fitness professionals must supervise every exercise session and must have a thorough understanding of youth resistance training and safety procedures. Professional certification in the area of strength and conditioning is highly desirable and is available through the NSCA. An instructor-to-child ratio of 1 to 10 is acceptable; however, additional supervision may be needed during the first few weeks of the program. Information should be presented to children in a way that is appropriate for their level of understanding. Children

should be encouraged to ask questions and freely state their concerns about the program. Charts, posters, and workout cards that promote proper exercise technique and realistic expectations are helpful.

Basic education regarding realistic goals, individual needs, and expected outcomes should be part of the resistance training program. Moreover, the exercise sessions provide an opportunity to teach children about their bodies and the importance of proper nutrition and regular exercise. Instead of competing against each other, children should be encouraged to embrace self-improvement and feel good about their performances, for example the ability to perform a multijoint lift. The focus of the program should be on proper lifting technique and having fun.

Different resistance training modalities have proven to be equally safe and effective for children. Although resistance training equipment is required for many exercises, body-weight-resisted and partner-resisted exercises are viable alternatives. Pads and boards may be used to modify certain types of adult-size equipment; however, some exercise machines may not fit a child's limb length. Child-size weight machines are now available from several manufacturers.

Factors such as safety, cost, construction, weight stack increments, and proper fit should be considered when evaluating resistance training equipment for children. In terms of gains in strength/power and motor performance in children, the quality of supervision and the design of the resistance training program appear to be more important than the type of equipment used.

The following guidelines for designing and implementing youth resistance training programs are recommended:

- Each child should be physiologically and psychologically ready to participate in a resistance training program.
- Children should have realistic expectations; remind them it takes time to get in shape and learn a new skill.
- The exercise environment should be safe and free of hazards.
- The exercise session should include 5 to 10 minutes of general warm-up exercises such as low intensity aerobics and stretching, followed by one or more light to moderate specific warm-up sets on the chosen resistance exercises.
- The exercise equipment should be in good repair and properly sized to fit each child.
- All training sessions should be closely supervised by experienced fitness professionals.
- All children should receive careful and competent instruction regarding exercise technique, training guidelines, and spotting procedures.
- All children should be taught weight room etiquette such as returning weights to the proper place and respecting physical differences.
- The session should start with one set of several upper and lower body exercises that focus on the major muscle groups. Single- and multijoint exercises should be included in the training program. Beginning with relatively light loads (e.g., 12- to 15-RM) will allow for appropriate adjustments to be made.
- The resistance should be increased gradually as strength improves. A 5 to 10% increase in overall load is appropriate for most children.
- Progression may also be achieved by gradually increasing the number of sets, exercises, and training sessions per week. Depending on the goal of the training program (i.e., strength or local muscular endurance), 1 to 3 sets of 6 to 15 reps performed on 2 or 3 nonconsecutive days a week is recommended. Throughout the program, one should observe each child's physical and mental ability to tolerate the workout.
- Each child should feel comfortable with the program and should look forward to the next workout. If a child has concerns or problems with a training program, the fitness professional is expected to make the appropriate modifications.
- Specific multijoint structural exercises (bench press, squats, leg press) may be introduced based on individual needs and competencies. When performing any new exercise, the child should start with a relatively light weight, or even a broomstick, in order to learn the correct technique with minimal muscle soreness.
- Advanced multijoint structural exercises such as Olympic-style lifts and modified cleans, pulls, and presses may be incorporated into the program, provided that appropriate loads are used and the focus remains on proper form. The purpose of teaching advanced multijoint lifts to children should be to develop neuromuscular coordination and skill technique. Coaching guidelines on resistance training and weightlifting exercises are avail-

able through the NSCA.

- A child who seems anxious about trying a new exercise should be allowed to watch a demonstration of it. Teach the child how to perform the exercise, and listen to each child's concerns.
- The concept of periodization should be incorporated into a child's training program by systematically varying the resistance training program throughout the year.
- Competition between children should be discouraged; instead, focus on participation with lots of movement and positive reinforcement.
- One should make sure each child enjoys resistance training and is having fun; do not force a child to participate in a resistance training program.
- Instructors and parents should be good role models. Showing support and encouragement will help maintain interest.
- Children should be encouraged to drink plenty of fluids before, during, and after exercise.
- Children should be encouraged to participate in a variety of sports and activities.

Age-specific training guidelines, program variations, and competent supervision will make resistance training programs safe, effective, and fun for children. Instructors must understand the physical and emotional uniqueness of children, and in turn, children must appreciate the benefits and risks associated with resistance training. Although the needs, goals, and interests of children will continually change, resistance training should be considered a safe and effective component of youth fitness programs.

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Unit 4

Theory of Coaching: Psychology Of Sport

"If you chase two rabbits, both will escape."

--Will Rogers

Theory of Coaching: The Psychology of Sport

Unit 4 Goals:

(Your objectives will be accomplished as you respond to the various assignments.)

After watching Sports Psychology and reading the assigned materials, coaches will:

- Investigate the relationship between arousal and motor performance in athletic settings.
- Explore how task characteristics, individual differences, physical conditioning and personality influence the relationship between arousal and motor performance.
- Establish techniques utilized to estimate an athlete's optimal level of arousal for successful athletic performances.
- Identify how cognitive strategies as well as relaxation and energizing techniques help regulate arousal for optimal athletic performances.
- Summarize how to advance and incorporate a mental skills training program into athletes' development.

Overview:

Unit 4: Mental Strategies

I. Arousal and sport

   A. Arousal-performance relationships
   B. Nature of arousal
   C. How arousal is generated

II. The performance-arousal relationship

   A. Inverted-U theory

      1. Task characteristics
      2. Skill level
      3. Physical conditioning
      4. Athlete’s personality

   B. Drive theory

III. Measurement of Arousal

A. Physiological approach
B. Biochemical approach
C. Questionnaires

1. State anxiety & trait anxiety
2. Multidimensional approach

IV. Intervention Strategies

A. Relaxation procedures

1. Progressive relaxation
2. Autogenic training
3. Transcendental meditation
4. Biofeedback

B. Cognitive relaxation strategies

1. Imagery
2. Goal setting

C. Psyching-up strategies

1. Goal setting
2. Pep talks
3. Bulletin boards
4. Publicity and news coverage
5. Fan support
6. Parents and booster clubs

V. Integrating and implementing a psychological skills training program

A. Who will benefit from psychological skills training
B. When to implement a psychological skills training program
C. When to practice psychological skills
D. How much time should be spent in mental training
E. Establishing with athletes a foundation for mental skills training
F. Practical pointers for teaching mental skills

1. Provide the what, why, when, and how of training
2. Structure the environment to complement your purpose
3. Stress personal responsibility
4. Individualize

5. Don't force it
6. Create rituals
7. Integrate mental skills training into the athlete's everyday life
8. Practice it before teaching it

Learning Objectives:

(Your learning objectives will be accomplished as you respond to the various assignments within this unit.)

1. After viewing Sports Psychology and reading Wrisberg's "The Arousal-Performance Relationship," explain in how inverted-U and drive theory are related to an athlete's athletic performance.

2. After viewing the video and reviewing Edens' "Enhance Performance Through Imagery," describe techniques used to control anxiety in sport settings.

3. After viewing the video and reviewing Gould and Udry's "Psychological skills for enhancing performance: arousal regulation strategies," discuss three ways relaxation skills are vital to athletes, how coaches can develop these abilities in their athletes, and incorporate the advancement of these skills into their everyday practice schedule.

4. Wrisberg, Craig A; "The Arousal-Performance Relationship." Quest, February, 1994, Vol. 46, pp. 60-77.

5. Edens, Robert; "Enhance Performance Through Imagery." Strategies, May 1994.

6. Gould, Daniel and Udry, Eileen, "Psychological skills for enhancing performance: arousal regulation strategies", Medicine and Science In Sports Exercise, Vol. 26, No. 4, pp. 478-485.

Assignment 11: (15 points)

(Use the MS Word document "Course Study Guide Answer Pages" provided for your convenience in word processing.)

Separately explain how the inverted-U theory and the drive theory are each related to an athlete's performance.

Assignment 12: (15 points)

(Use the MS Word document "Course Study Guide Answer Pages" provided for your convenience in word processing.)

All athletes experience some arousal during athletic contest, but this phenomenon does not always produce a positive result.

1. As it relates to optimal performance, how is arousal defined?

2. What is the relationship among the following factors and optimal states of arousal?

    A. Complexity of the task:
    B. Skill level:
    C. Trait-anxiety:
    D. Physical fitness:

3. Using information from the video, explain the various measures that can be utilized to evaluate athletes' levels of arousal.

Assignment 13: (15 points)

(Use the MS Word document "Course Study Guide Answer Pages" provided for your convenience in word processing.)

This unit has introduced a variety of arousal control techniques that might be employed in coaching: imagery, goal-setting, progressive relaxation, etc.

1. Select one of these techniques that you would use as a coach. In a 150 word essay describe the technique and how specifically it helps control unwanted arousal.

2. How can this technique be applied in the sport with which you are most familiar?

Assignment 14: (15 points)

(Use the MS Word document "Course Study Guide Answer Pages" provided for your convenience in word processing.)

Athletes have unique mental states and skills just as they have unique physical skills.

1. Identify your area (or projected area) of involvement as a coach.

2. List and explain five practical pointers coaches need to consider when teaching mental skills.

3. Separately explain how you would specifically implement each of these five pointers into your athletic program.

Unit 4 – Assignment Sheet

Assignment 11: (15 points)

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Assignment 12: (15 points)

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    b. Skill level:

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Suggested Readings:

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www.enhanced-performance.com

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The Arousal–Performance Relationship

Craig A. Wrisberg

A key theme in any discussion of physical activity and stress is the relationship between emotional arousal and motor performance. Even the most casual participant can recall feeling "flat" or "tense" while attempting some movement skill and can remember that neither sensation was particularly enjoyable nor advantageous to performance. Conversely, peak performance is often associated with perceptions of heightened alertness and minimal anxiety.

A number of excellent reviews of the literature on the arousal–performance relationship have been published in recent years (e.g., Gould & Krane, 1992; Landers & Boutcher, 1986; Martens, Vealey, & Burton, 1990). In this paper I will demonstrate how a variety of research paradigms have produced converging evidence for the notion that motor performance is associated with, and often enhanced by, a state of optimal arousal. It should be noted that the literature reviewed here is only a representative sample of studies of the voluminous body of research on the topic. Following a brief discussion of definitional issues, the various lines of research will be summarized. Finally, themes emerging from this literature will be reiterated, along with recommendations for future studies and implications for professional practice and society.

Definitional Issues

Even a surface perusal of the literature on the arousal–performance relationship reveals a lack of definitional consistency with respect to terms such as *stress*, *arousal*, *anxiety*, and *performance* (for a more detailed discussion see Gould & Krane, 1992). The causes of such ambiguity are perhaps not as important as the fact that such a condition has clouded the interpretation of experimental findings. A further complication stems from the decisions of investigators to focus on different constructs when exploring the arousal–performance connection. For instance, in some studies arousal, stress, and performance have been the phenomena of interest, whereas in others the focus has been on the influence of various components of anxiety on performance.

Stress

Although there are numerous definitions of stress, those most relevant to the investigation of the arousal–performance relationship characterize stress as a *process*. In the sport psychology literature, McGrath's (1970) model of stress is referred to most often. According to McGrath (1970), stress occurs whenever there is "a substantial imbalance between (environmental) demand and response capability, under conditions where failure to meet the demands has important consequences" (p. 20). In McGrath's model, stress is seen as a sequence of events leading to a particular response that may be positive or negative, depending on the individual's perception of environmental demands.

Hogan and Hogan (1982) suggest that "at the level of a specific individual, the problem is to determine what kind of stressor provokes what kind of stress response in what kind of person" (p. 145). Alluisi (1982) further points out that different classes of stressors exist. For example, a person may experience an environmental stressor like temperature, a physiological demand like muscle loading, or a psychological stressor like fear, to name a few, each giving rise to a different response. Alluisi (1982) also emphasizes that "marked individual differences in responses are the rule" (p. 2).

In sum, then, the view of stress taken in the present paper is that proposed by McGrath (1970) and amplified by others. Principally, stress involves an individual's perception of environmental demands relative to her or his response capabilities, the result of which may be a positive response (if the perceived mismatch is viewed as challenging) or a negative response (if the perceived mismatch is considered threatening).

Arousal

Although more often associated with levels of physiological activation (e.g., Hackfort & Schwenkmezger, 1989; Malmo, 1959), recent discussions have suggested a broadening of arousal to include mental activation as well (Martens, 1987). Therefore, in the present paper arousal is considered an index of the level of physiological and psychological intensity of an individual at any given moment. Arousal may be operationally defined by physiological measures (e.g., heart rate [HR], galvanic skin response [GSR]) or behavioral measures (e.g., shifts in attentional focus, self-reports of activation levels).

Anxiety

More closely identified with stress, anxiety is the cognitive/emotional reaction that occurs when a perceived imbalance between environmental demand and individual capability to meet the demand is interpreted as threatening. Perhaps the foremost authority on the topic of anxiety is Spielberger (1966, 1972) who, in his theory of anxiety, conceptually differentiates the terms *trait anxiety* and *state anxiety*. Spielberger (1966) defines trait anxiety as "a motive or acquired behavioral disposition that predisposes an individual to perceive a wide range of objectively nondangerous circumstances as threatening" (p. 17). State anxiety, on the other hand, is considered a present-tense emotional reaction "characterized by subjective, consciously perceived feelings of apprehension and tension, accompanied by or associated with activation or arousal of the autonomic nervous system" (p. 17). Spielberger contends that high trait-anxious individuals respond to stress with higher levels of state anxiety than do low trait-anxious persons, and this has generally been found to be the case with athletic populations (e.g., Klavora, 1978; Weinberg & Genuchi, 1980). However, Spielberger predicts that all persons may be expected to manifest increased levels of state anxiety under sufficiently threatening circumstances.

Two matters dealing with the concept of anxiety warrant particular emphasis. First, it is important to note that state anxiety and arousal represent different, though not independent, responses to the perception of environmental demand. In Stage 2 of his model of stress, McGrath (1970) proposes that the perception of environmental demand occurs. In Stage 3 the response of the individual begins to be evidenced, including increased physiological arousal

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and sometimes the development of state anxiety. However, this anxiety is manifested only when an imbalance between perceived environmental demand and perceived individual capability to meet the demand is interpreted as threatening.

Recently, it has been suggested that the nature of an emotional response to the perception of environmental demand may also be dependent on the metamotivational state of the individual at the moment. Borrowing from earlier theorizing by Smith and Apter (1975) on the relationship between arousal and emotional affect, Kerr (1985, 1987) and Martens (1987) have suggested that arousal and stress may interact to negatively influence physical performance if a person is in a *telic* (serious or goal-oriented) motivational state. However, if the individual is in a *paratelic* (playful or activity-oriented) motivational state, arousal and stress may combine to positively affect performance. According to this view, paratelic performers exposed to the stress of competition would be predicted to view the situation as challenging and, therefore, would be positively aroused by the opportunity to test their abilities. Conversely, individuals in a telic state would be expected to interpret the imbalance between environmental demand and individual capability to meet the demand as threatening and respond with increased state anxiety.

The important point here is that stress produces increased arousal in individuals in either the paratelic or telic state, but for those in the former, increases are paired with positive affect, whereas for those in the latter, increases are accompanied by negative affect and increases in state anxiety. In a slightly different vein, Martens (1987) postulates that "positive psychic energy" (i.e., physiological and psychological activation in the absence of perceptions of threat) and "negative psychic energy" (i.e., negative affect or state anxiety) exist simultaneously. According to this notion, performance outcome is determined by the energy source dominating the moment. If positive, performance is enhanced, but if negative, performance is impaired.

A second matter of considerable importance to contemporary theorizing on the arousal–performance relationship is the proposal that anxiety should be viewed as a multidimensional concept. Foremost in the sport performance literature is the work of Martens and colleagues (Burton, 1988; Martens, Vealey, & Burton, 1990) who have postulated the existence of at least two components of anxiety: *somatic anxiety* and *cognitive anxiety*. Somatic anxiety is viewed as the conditioned physiological response that typically occurs in stress situations (e.g., rapid heart beat, increased rate of respiration, dry mouth). Cognitive anxiety is linked with the perception of threat that leads to self-defeating thought patterns. Of particular importance is the prediction that somatic anxiety and cognitive anxiety affect performance in different ways. For somatic anxiety, the classical inverted-U relationship with performance is predicted; that is, increases in anxiety are accompanied by increases in performance only up to a point. After that, additional increments in anxiety are expected to produce impaired performance. For cognitive anxiety, a negative linear relationship with performance is predicted, with increases in anxiety accompanied by decreases in performance.

Only a few studies have been conducted to test the validity of the multidimensional anxiety theory, but they offer some modest initial support for the notion (e.g., Burton, 1988; Gould, Petlichkoff, Simon, & Vevera, 1987). The behavioral instrument used in most of these investigations has been the Competitive State Anxiety Inventory-2 (CSAI-2; Martens, Burton, Vealey, Bump, & Smith, 1990). However, the Sport Anxiety Scale developed by Smith, Smoll, and Schutz (1990) also contains several anxiety components (i.e., somatic reactions, cognitive worry, concentration disruption) and offers a viable alternative to the CSAI-2. Adopting a more expanded methodology, some investigators (e.g., Blais & Vallerand, 1986; Karteroliotis & Gill, 1987; Powell & Vemer, 1982; Prapavessis, Grove, McNair, & Cable, 19[illegible]einberg & Hunt, 1976) have employed both physiological measures (e.g., bloo[illegible] [illegible](BP], heart rate [HR], respiration rate, electromyography [EMG], electrocardiogr[illegible]

[ECG], catecholamine concentrations expressed in relation to creatinine excretion) and behavioral measures (e.g., CSAI-2; Sport Competition Anxiety Test [SCAT], Martens, 1977; State-Trait Anxiety Inventory [STAI], Spielberger, Gorsuch, & Lushene, 1970) to delineate the precise nature of the anxiety response and to determine the relationship of each type of measure to performance. Multidimensional approaches such as these should be of considerable utility to future researchers.

Performance

Of all the terminology surrounding the arousal–performance relationship, operational definitions of performance have probably been the least consistent and most arbitrary. In many studies, performance has been defined in terms of the extent of goal achievement, sometimes referred to as *outcome scores*. Examples include 18-hole golf scores (Weinberg & Genuchi, 1980), the round eliminated and the point differential in games of a racquetball tournament (Meyers, Cooke, Cullen, & Liles, 1979), the total score for a round of target shooting (Prapavessis & Grove, 1991), adjusted performance time in swimming (Burton, 1988), and total points achieved in throwing a tennis ball at a target (Weinberg & Ragan, 1978). Occasionally, performance outcomes have been inferred from the perception of observers (usually coaches' ratings) about the extent to which performers achieved some goal (e.g., Klavora, 1978, 1979).

A few investigators have attempted to define performance in terms of *process characteristics* such as joint angle (Beuter & Duda, 1985), EMG patterns (Blais & Vallerand, 1986; Weinberg, 1978; Weinberg & Hunt, 1976), and quality of airplane exit and ground landing by parachutists (Powell & Vemer, 1982). In one of the few studies involving both outcome and process measures of performance, Albrecht and Feltz (1987) found that subscale scores on a baseball version of Nideffer's (1979a) Test of Attentional and Interpersonal Style (B-TAIS) were related to both competitive anxiety (i.e., SCAT scores) and batting performance (defined as the percentage of official plate appearances in which the ball was put into play by bat contact) of baseball and softball players. Of particular interest was the finding of significant correlations between SCAT scores and scores on each of the subscales of the B-TAIS that measure an ineffective deployment of attention (overloaded by external or internal information and excessive and inappropriate narrowing of attention). This suggests that one way anxiety may influence performance outcome is through the ineffective management of attention. Such a relationship has been extensively discussed elsewhere (Easterbrook, 1959; Nideffer, 1979b, 1981; Wine, 1971).

A Methodological Point

In a recent review of the literature, Gould and Krane (1992) discussed a number of methodological problems with investigations of the arousal–performance relationship. Although these problems will not be detailed in the present paper, they are mentioned here to serve as a reminder that any interpretation of the arousal–performance literature must be tempered by an appreciation of possible shortcomings in methodology. In addition to the aforementioned problems dealing with (a) inconsistent usage of terminology pertaining to the concept of arousal and related states, (b) treatment of arousal/anxiety as a unidimensional rather than multidimensional phenomenon, and (c) measurement of performance in terms of outcomes rather than processes, Gould and Krane (1992) point out that most investigators have studied arousal–performance trends across groups of people rather than within individual persons. This is particularly puzzling in light of the fact that most theoretical discu[illegible] of the arousal–performance relationship characterize it as a highly individual matter, [illegible]ng the

complex interaction of person, task, and situation. It is anticipated that future research on this topic will include a much greater use of intraindividual methods of inquiry (for an excellent example, see Sonstroem & Bernardo, 1982).

A Note on the Concept of Optimal Arousal

No discussion of the arousal–performance literature would be complete without some mention of the concept of optimal arousal. Though subtle differences exist in contemporary theories/hypotheses addressing the arousal–performance relationship (for a review see Gould & Krane, 1992), most include the implicit assumption that maximal levels of performance are associated with optimal levels (or zones) of arousal. Such a proposition was first suggested in the inverted-U hypothesis of Yerkes and Dodson (1908). Modern theories/hypotheses (e.g., Hanin, 1980; Hardy & Fazey, 1987; Kerr, 1985; Martens, Vealey & Burton, 1990) speak more to the notion of optimal arousal states and the factors that presumably influence performers' attainment of such. These factors include various combinations of person (e.g., metamotivational state), task (e.g., level of complexity), or situational (e.g., familiarity) variables. The review that follows illustrates how various experimental approaches to the arousal–performance relationship have provided at least modest support for the optimal arousal–optimal performance connection.

Experimental Approaches

In this section, the results of studies representing various approaches to the investigation of the arousal–performance relationship in motor performance and sport have been categorized as follows: (a) characteristics of high- and low-trait-anxious persons, (b) characteristics of athletes, (c) task characteristics, (d) situational characteristics, and (e) the effects of anxiety management training and mental preparation strategies.

Characteristics of High- and Low-Trait-Anxious Persons

It is usually assumed that the performance of high-trait-anxious persons differs to some extent from that of low-trait-anxious persons, particularly under conditions of perceived threat. Easterbrook (1959), for example, suggested that increases in anxiety result in a reduction in the number of cues to which performers are able to attend. Under conditions of perceived threat, task-irrelevant cues are the first to become unavailable. However, as anxiety levels continue to increase, task-relevant cues may also be diminished. For high-anxious individuals, more cues are eliminated, and impairments in performance occur primarily because relevant information is not processed. For low-anxious individuals, more cues (both relevant and irrelevant) remain available, and therefore, errors in performance tend to be due to the processing of irrelevant information.

Several investigators have attempted to compare the characteristics of high- and low-anxious persons in motor performance situations. Weinberg and colleagues (Weinberg, 1978; Weinberg & Hunt, 1976; Weinberg & Ragan, 1978) categorized individuals as high, moderate, or low anxious (assessed by responses on the STAI and SCAT). Using a novel task that involved throwing a tennis ball at a target, it was found that high-anxious subjects performed with less accuracy and used more energy (determined by EMG patterns) than did low-anxious subjects, but were more accurate and used less energy after receiving success feedback than after receiving failure feedback.

In a field setting, Weinberg and Genuchi (1980) found that high-trait-anxious intercollegiate golfers had higher state anxiety (STAI) during medal play than did moderate- and low-trait-anxious (SCAT) players. In addition, low-anxious golfers performed better (i.e., lower 18-hole scores) than did moderate- and high-anxious players. However, some research has suggested that persons perform better when state anxiety levels are more in line with their normal trait-anxiety levels. For example, Klavora (1978) reported that high-trait-anxious (STAI) high school basketball players performed better during tournament play (as determined by coaches' ratings) when their state anxiety levels were high than when they were low.

The results of several studies with younger athletes suggest that high-anxious performers differ from their low-anxious counterparts with respect to competence perceptions and sources of worry. Passer (1983) found that high-anxious male youth soccer players expected to play less well; experienced greater shame and upset; received more frequent criticism from parents and coaches; and worried more frequently about not playing well, losing, and being evaluated than did low-anxious players. Similarly, Brustad and Weiss (1987) discovered that high-anxious male youth baseball players had lower self-esteem and a higher frequency of performance-related worries than did low-anxious players. However, such differences were not found for high- and low-anxious female softball players, suggesting that the perception of threat may be greater for young males in sporting contexts than it is for young females. Considering the findings of Weinberg (1978) mentioned earlier, it is possible that the performance of high-anxious young males might be enhanced in sport competition situations if they are given success feedback (leading to reductions in state anxiety).

In summary, it appears that state anxiety is usually lower and motor performance higher in low-trait-anxious individuals than in high-trait-anxious persons. However, some individuals may perform better at state-anxiety levels that are in greater correspondence to their usual trait-anxiety level. Finally, it appears that state anxiety may be diminished by increasing the amount of success feedback or decreasing the amount of failure feedback.

Characteristics of Athletes

It is often assumed that athletes operate consistently closer to their optimal arousal-performance level than do average or lesser skilled individuals. A number of investigators have examined the anxiety perceptions of athletes and have attempted to determine characteristics that might enable skilled individuals to more effectively manage competitive stress. Naruse (cited in Kroll, 1979) interviewed 125 Japanese Olympic athletes following the 1960 games in Rome and reported that all were troubled by anxiety at some time during competition. Other investigators found that individual differences exist among athletes with respect to perceived sources of stress (Gould, Horn, & Spreeman, 1983b; Scanlan, Stein, & Ravizza, 1991). However, some competition-related stressors (e.g., worrying about failure, performing poorly, and losing) appear to be shared by athletes (Scanlan et al., 1991). As in the case of nonathletic populations, athletes' stress levels seem to be highly dependent on their individual perceptions of threat. For example, Meyers et al. (1979) found that national champion collegiate racquetball players were more anxious against less skilled opponents because the champions perceived that they had more to lose.

Although many athletes say they experience stress prior to (and occasionally during) competition, their performance is often unaffected to any great extent by resulting anxiety perceptions. In a study of young distance runners, Feltz, Lirgg, and Albrecht (1992) discovered that although the majority (71%) reported feelings of nervousness before races, most believed that these emotions did not significantly affect their performance. In a more direct assessment of anxiety and performance, Gould, Weiss, and Weinberg (1981) found that higher prematch anxiety (assessed by a questionnaire) did not impair the overall performance (determined by

seasonal winning percentage) of collegiate wrestlers. More recently, Gould, Eklund, and Jackson (1992a, 1992b) interviewed U.S. wrestlers competing at the 1988 Olympic games and discovered that medalists responded to the stress of competition with heightened arousal and intensity. These individuals also indicated that their best match mental states were more often characterized by concentration, intensity, and confidence. Although it might be argued that the performance of high-intensity sports such as running and wrestling should be expected to benefit from higher arousal/anxiety levels, there is some evidence that elite competitors in activities requiring a considerable degree of precision and coordination are also able to use competitive anxiety to their advantage. For example, Mahoney and Avener (1977) found that qualifying gymnasts at the 1976 Olympic trials utilized precompetitive anxiety to "psych up" for their performance.

Two factors that may serve to mediate the stress responses of athletes are success and experience in competition. Heyman (1982) reanalyzed data from the Gould et al. (1981) study and discovered that placers in the Big Ten wrestling tournament had better seasonal records and more experience than did nonplacers. Similarly, Gould, Horn, and Spreeman (1983a) found that older and more experienced wrestlers at the Junior National Championships were lower trait anxious (SCAT) than were younger and less experienced wrestlers. Highlen and Bennett (1979) compared pre-event behavior and cognitive activity (assessed by a questionnaire) of athletes competing for positions on three Canadian World Wrestling teams and found that qualifiers were more self-confident and less anxious prior to competition than were nonqualifiers. It is of course possible that lower competitive anxiety levels are not a product of success or experience but a manifestation of lower preexisting trait-anxiety levels. Such a possibility has been suggested by Robinson (1985) in a study in which elite rock climbers were found to be high in sensation seeking and low in trait anxiety (STAI) both in daily and recreational activities.

One aspect of experience that may facilitate a positive response to stress is the knowledge of how to appropriately prepare for competition. Recently, Jones, Swain, and Cale (1990) discovered that the best predictor of cognitive anxiety and self-confidence (CSAI-2) in elite intercollegiate middle-distance runners was perceived readiness (assessed by a prerace questionnaire). Research by Rotella, Gansneder, Ojala, and Billing (1980) further suggests that successful preparation may include the development of a positive (and even fearless) attitude toward competition. In Rotella et al.'s study, highly ranked competitive skiers reported focusing their attention on things they did well and addressing the stress of competition head-on. Attentional focus has been found to be associated with anxiety and performance in a number of investigations. For example, Albrecht and Feltz (1987) obtained questionnaire responses from varsity baseball and softball players and discovered that competitive anxiety (SCAT) was significantly correlated with attentional characteristics (B-TAIS) that reflected an ineffective deployment of attention (i.e., the tendency to be overloaded by both external and internal information and to narrow attention too much). Using a slightly different approach, Bird and Horn (1990) found that high school female softball players who committed more mental errors in a game (determined by coaches' ratings) had more cognitive anxiety (CSAI-2) than did those who made fewer errors.

Several investigators have observed changes in attentional pattern during the performance preparation of athletes. For example, Hatfield, Landers, and Ray (1984) recorded a dramatic shift from left-brain (analytical) to right-brain (visual-perceptual) activity in skilled shooters prior to rifle firing. More recently, Collins, Powell, and Davies (1990) found an increase in alpha electroencephalographic (EEG) activity (indicative of increased attentional focus) in high-level karate performers immediately prior to the execution of board-breaking responses. Attentional narrowing has also been reported by elite collegiate golfers who indicated that they ...red for their shots by directing attention to single task-relevant cues (Boutcher & Zinsser, 1990). This pattern contrasted sharply with those of beginning golfers who tended to employ preperformance thought patterns that were more highly analytical and involved multiple cues. The results of these studies suggest that arousal/anxiety and attention are (a) highly (and probably reciprocally) related, and (b) managed more effectively by successful athletes.

There have been a few attempts in recent years to determine the relationship between arousal/anxiety and athlete performance. In a test of multidimensional anxiety theory (CSAI-2), Burton (1988) found that the competitive performance of collegiate swimmers was positively related to self-confidence, negatively related to cognitive anxiety, and curvilinearly related to somatic anxiety. Moreover, self-confidence and cognitive anxiety were found to be better predictors of performance than was somatic anxiety. A particularly powerful aspect of this study was the use of intraindividual measures of performance (i.e., each individual's present performance was compared to his or her previous average or best performance). The notion of individual differences in optimal arousal level has also received support from the results of several studies with athletes. For example, Klavora (1979) found individual differences in both the within-player range of pregame arousal/anxiety levels (STAI) and the level of arousal associated with outstanding basketball performance (postgame coaches' ratings) of individual high school athletes. More recently, Prapavessis and Grove (1991) observed that the peak performance of clay target shooters was accompanied by individual differences in the level of precompetitive emotion (assessed by responses on the Profile of Mood States [POMS]; Schacham, 1983).

There is also some interesting evidence that athletes monitor and adjust arousal in different ways in order to facilitate their own performance. For example, Landers and colleagues (Daniels, Wilkinson, Hatfield, & Lewis, 1981; Landers, Christina, Hatfield, Daniels, & Doyle, 1980) reported individual variations in HR and length of breath hold for competitive rifle and pistol shooters. They also noted that each shooter had his or her own optimal range for each factor and that better shooters had more accurate perceptions of their own autonomic activities (i.e., perceptions of HR and breathing that coincided with physiological measures). Using an interview approach with ski jumpers, Razumov and Saburov (1978) discovered that extroverts and introverts engaged in different types of activities in order to peak psychologically for competition. Specifically, extroverts alternated special physical exercise and rest in an effort to lower preperformance arousal, whereas introverts increased the number of practice jumps and performed a variety of physical exercises in an attempt to raise their level of pre-event arousal.

In summary, it appears that competitive experiences may serve to sharpen athletes' sensitivity to the arousal–performance relationship. The available evidence also suggests that athletes (a) differ with respect to range of arousal and level of optimal arousal, (b) are in some cases able to use pre-event emotional responses to enhance their performance, and (c) are sensitive to the types of precompetitive adjustments needed to achieve a level of arousal that will facilitate performance.

Task Characteristics

One factor that seems to mediate the arousal–performance relationship is that of task difficulty or complexity. It has for some time been assumed that tasks having greater demands for precision, coordination, or information processing are performed better at relatively lower levels of arousal/anxiety (Kelly, 1985; Landers & Boutcher, 1986; Oxendine, 1970). For example, DeMoya and DeMoya (1986) found that the position of finish for motocross racers was inversely related to state anxiety level (STAI). Similarly, Powell and Vemer (1982) discovered that although different measures correlated with different phases of ...chute

jump in first-time paracutists, in all cases better performance was associated with lower arousal/anxiety (e.g., better landings were associated with lower prejump HR, while a more skilled plane exit was associated with lower scores on the STAI). In a task of intermediate complexity, Gould et al. (1987) discovered an inverted-U relationship between somatic anxiety (CSAI-2) and pistol-shooting performance. They subsequently reasoned that the type of perceptual/attentional focus and neuromuscular control required in pistol shooting necessitated moderate levels of somatic arousal. Finally, tasks requiring high levels of gross-motor activity or effort (e.g., distance running, wrestling) appear to be enhanced by higher levels of arousal (Feltz et al., 1992; Gould et al., 1983a, 1983b; Gould et al., 1981).

In an attempt to determine the effect of task complexity on various components of anxiety (CSAI-2), Burton (1988) found that sprint freestyle events in swimming (classified as moderately complex) were performed better at lower levels of somatic anxiety, whereas distance freestyle events (low complexity) were performed better at higher levels of somatic anxiety. However, task complexity appeared to have little influence on self-confidence or cognitive anxiety. Using Landers and Boutcher's (1986) task-complexity continuum, Ebbeck and Weiss (1988) found no regular pattern of relationship between competitive anxiety (CSAI) and performance in a variety of track and field events. Instead, optimal levels of arousal and performance appeared to be peculiar to each athlete.

Some researchers have found that performers appear to adjust their arousal level in a manner consistent with complexity demands. For example, Boutcher and Zinsser (1990) found that varsity collegiate golfers had greater deceleration of heart rate and kept their attention focused on a single external or internal cue (e.g., back of ball or rhythm of swing) prior to attempting longer (and presumably more difficult) putts (i.e., 12 ft). For shorter putts (i.e., 4 ft) no such adjustments were evident. This suggests that when examining the arousal-performance relationship within a particular sport, care should be taken to differentiate the complexity of various tasks comprising the activity. For example, in basketball, a relatively higher level of arousal may be desirable for playing defense, whereas a lower one might be more conducive to shooting free throws.

In summary, the available evidence suggests that task complexity is one factor that should be considered when determining the optimal level of arousal needed to facilitate task performance. However, it should be noted that no consistent definition of complexity has been used across studies, and in fact, many definitions have been ad hoc in nature. In light of the results of investigations showing no effect of task complexity on group performance (e.g., Ebbeck & Weiss, 1988), it might be useful to ascertain individual performers' perceptions of the difficulty of various tasks and then conduct within-subject analyses of arousal and performance on tasks differing in perceived complexity.

Situational Characteristics

Another factor that appears to be important when considering the optimal level of arousal necessary for successful performance is the nature of the situation in which performance occurs. Not surprisingly, a number of investigators have attempted to manipulate or isolate situational factors to examine their influence on arousal and performance. Lowe (1973) measured the batting performance of Little League baseball players under various conditions of situational stress (defined as relative win–loss records of the two teams, closeness of score, number of runners on base, etc.) and found that batting proficiency was higher under moderate conditions of stress than under low- or high-stress conditions. This finding was replicated with basketball free throw shooters by Ahart (cited in Fisher, 1976) but not by Giambrone (1973) or Wrisberg and Pein (1992). It should be noted that no direct measures of arousal were obtained in any of these studies; thus, a connection between situational stress and emotional reaction could not be confirmed.

Investigators have also attempted to manipulate situational stress in other ways. One source of stress for many people is the fear of evaluation. Simon and Martens (1979) obtained responses (CSAI) from a sample of 749 young males under baseline conditions and then again prior to participation in a variety of sporting and nonsporting events. The result indicated that the highest perceptions of anxiety existed prior to individual evaluative activities (e.g., band solo, wrestling, gymnastics) and that individual sport participants had higher precompetition state anxiety than did team sport participants. Beuter and Duda (1985) manipulated situational stress by requiring young males to perform a consecutive stepping task under conditions of high evaluation (videotaping of performance and judgment of an expert) and low evaluation (no taping, no expert judgment). Their results indicated that HR was higher and performance was characterized by more kinetic disruptions under the high-evaluation condition.

Gould et al. (1987) obtained pre-event anxiety measures (CSAI-2) and then observed the performance of pistol shooters under three conditions of evaluation (all shooting together, team against team, and team against team with participants watching). Their results revealed that (a) the evaluative conditions created different levels of anxiety, (b) an inverted-U relationship existed between somatic anxiety and performance, (c) there was no relationship between cognitive anxiety and performance, and (d) there was a negative relationship between self-confidence and performance. The unexpected latter finding was presumed to be due to increased concentration arising from perceptions of lower confidence.

Some investigators have used competition in an effort to introduce situational stress. For example, Starkes and Allard (1983) required female athletes to make visual judgments about volleyball game situations either alone or in competition with another player and discovered that HR was higher and the speed and accuracy of performance was diminished under competitive circumstances. However, Karteroliotis and Gill (1987) found a lack of predicted trends in either paper and pencil (CSAI-2, SCAT) or physiological (BP, HR) measures of arousal when subjects performed a novel pegboard task in competition with a confederate. It was suggested that the absence of expected emotional response occurred because subjects had little interest in the outcome of a laboratory-contrived competition. Taken together, the above results suggest that subjects' perceptions of competition need to be considered when evaluating its effect as a situational stressor.

Rather than attempting to manipulate situational stress, some researchers have chosen to obtain data from subjects that reflect their perceptions of or emotional reaction to various times or events surrounding a performance bout. Fenz and colleagues (Fenz, 1975; Fenz & Jones, 1972) monitored various physiological measures (e.g., HR, respiration) in parachutists (beginning upon arrival at the airport and ending after completion of the jump) and observed that arousal levels peaked at different times for beginning and experienced performers. Meyers et al. (1979) obtained questionnaire responses from members of a national championship collegiate racquetball team and found that all experienced anxiety upon arrival at the competition site. However, as the beginning of the match approached, perceived anxiety levels decreased for the more successful performers (defined in terms of round eliminated and point differential), whereas the levels increased for the less successful players. Mahoney and Avener (1977) obtained questionnaire responses from male gymnasts competing at the 1976 Olympic trials and discovered that qualifiers were more anxious prior to competition and tried to use it in a positive way, whereas nonqualifiers were more anxious during competition and tended to respond with self-defeating thoughts.

Gould et al. (1983a) asked junior elite wrestlers to complete an anxiety survey 48 hr prior to competition at the Junior National Championship tournament. Generally, these subjects reported that anxiety increased as competition approached but diminished once the match began. In an effort to determine which anxiety components were affected at various time

intervals, Gould, Petlichkoff, and Weinberg (1984) obtained CSAI-2 data from 63 female high school volleyball players 1 week, 48 hr, 24 hr, 2 hr, and 20 min prior to competing in a major tournament. The results indicated that somatic anxiety increased as competition approached while cognitive anxiety and self-confidence remained the same.

Scanlan and her colleagues also attempted to determine whether different sources of stress were associated with anxiety responses at different time intervals surrounding competition. In separate studies, Scanlan and Passer measured A-trait (SCAT) and A-state (STAI-C) in male (Scanlan & Passer, 1978) and female (Scanlan & Passer, 1979) youth soccer players 30 min before and immediately after the first game of a tournament. In both investigations, pregame stress was found to be associated more with perceived inadequacy to meet the demands of competition (e.g., low self-esteem), whereas postgame anxiety was due more to a perceived inadequacy of actual response to competitive demands (i.e., game outcome).

More recently, Scanlan and Lewthwaite (1984) obtained state-anxiety data (CSAI-C; Martens, Burton, Rivkin, & Simon, 1980) from young wrestlers on four different occasions: 2 weeks prior to a tournament, 2 hr prior to their first match, 10–20 min prior to their first match, and 10–20 min prior to their second match. The most influential predictors of prematch anxiety were found to be competitive trait anxiety (SCAT) and perceived pressure to win, and the best predictors of postmatch (first match) anxiety were outcome of the first match and the extent to which competing was fun.

In summary, the available evidence indicates that although situational factors need to be considered when attempting to determine optimal arousal levels that contribute to successful performance, individual differences in the perception of and response to such factors must be considered. Recent research suggests that athletes not only differ with respect to their perceptions of situational stress (Jones & Swain, 1992) but that they experience stress under both competitive (e.g., perceived importance of event) and noncompetitive (e.g., time and money demands) circumstances (Scanlan et al., 1991). It has also been noted (Fisher & Zwart, 1982) that athletes often respond differently to the same situational stressor (e.g., following a particularly crucial mistake by an official, some players may become more determined, whereas others may give up). Once again, it appears that intraindividual analyses (e.g., Sonstroem & Bernardo, 1982) should be conducted in order to provide the best insights into the effects of situational characteristics on the arousal–performance relationship.

Anxiety-Management Training and Mental-Preparation Strategies

A few investigators have attempted to determine the influence of mental training on movement/sport performance. As mentioned earlier, several theorists have postulated a strong relationship between arousal, attention, and performance (Easterbrook, 1959; Nideffer, 1979b; Wine, 1971). One assumption underlying several stress-management programs (e.g., Martens, 1987) is that attentional processes may be utilized to reduce somatic anxiety (by directing attention toward somatic cues and then practicing a relaxation technique) or cognitive anxiety (by directing attention away from task-irrelevant cues and toward task-relevant cues). Nideffer (1979b, 1981) contends that if individuals are taught to direct or redirect their attention to task-relevant cues, optimal arousal should be maintained and performance enhanced.

The results of several studies suggest support for the notion that stress-management training improves both arousal control and performance. Prapavessis et al. (1992) reported that a 6-week intervention program involving training in relaxation, thought stopping (i.e., replacing negative thoughts with positive ones), refocusing, coping statements, and biofeedback contributed to lowered (compared to baseline) anxiety (CSAI-2, gun vibration, catecholamine levels) and improved performance for one small-bore rifle shooter who suffered from high levels of competitive anxiety.

In an earlier study, Weinberg, Seabourne, and Jackson (1981) found that training in visuo-motor behavior rehearsal (VMBR; Suinn, 1972a, 1972b), involving a combination of relaxation and imagery, resulted in lowered state anxiety (STAI) and improved performance of males in a karate club. Fenz (1988) introduced a group of parachutist trainees to a special stress-coping program designed to shift their attention to aspects of the external environment (e.g., monitoring of jump-related activities) and to force them to assume more control of procedures (e.g., obtain instrument readings). Although no performance measures were obtained, the results indicated that trainees shifted their HR responsivity to a point earlier in the jump sequence, with arousal being lowered immediately prior to the jump, and elected to make their first freefall attempt sooner than a no-program control group.

Some investigators have reported shifts or reductions in arousal without coincident improvements in performance. For example, in the Weinberg, Seabourne, and Jackson (1981) study mentioned earlier, relaxation training alone was found to produce reductions in state anxiety, but had no influence on karate performance. More recently, Blais and Vallerand (1986) provided EMG biofeedback to 20 high-trait-anxious (SCAT) young males in an attempt to teach them to control physiological arousal levels. Control subjects received a placebo (white noise) manipulation. Although the biofeedback group successfully learned to relax the frontalis muscles, they did not demonstrate lower state anxiety, HR, or respiration rate, or better stabilometer performance than did control subjects.

In a few studies, mental preparation strategies have been observed to facilitate subsequent performance but have little or no influence on arousal/anxiety measures. Gould, Weinberg, and Jackson (1980) found that subjects who used a premovement mental strategy designed to increase levels of preparatory arousal (i.e., emotionally "charge up") had significantly higher leg strength performance than did groups that rested or engaged in an attentional focusing activity designed to narrow attention on the muscles of the leg. Interestingly, an imagery preparation condition involving a mental picture of "kicking your leg up as hard and fast as possible" (p. 331) resulted in performance similar to that of the preparatory arousal group. Although such findings seem to suggest that pre-event arousal adjustment is an important factor in strength performance, it should be noted that only modest between-group differences in anxiety/arousal measures (the STAI and Thayer's, 1967, activation-deactivation checklist) were found. In a similar study, Weinberg, Gould, and Jackson (1981) discovered that while four different psych-up strategies significantly improved (pre–post) the maximum leg strength performance of male and female university students, there were no between-group differences in posttest leg strength or activation measures.

More recent research by Wilkes and Summers (1984) suggests that mental preparation strategies may serve more to adjust attention than arousal. Male university students performed three trials in which they attempted maximum leg extension after reading from an economics text. Subjects then attempted three more maximum extensions after engaging in one of five preparation strategies: additional reading, preparatory arousal, attentional focusing, imagery, and positive self-efficacy statements. The results indicated that preparatory arousal and positive self-efficacy statements produced significantly higher strength test scores than did additional reading (i.e., control conditions). Of the questionnaire variables, arousal, general activation, and attention were the only ones that correlated significantly with strength-change scores. However, attention was found to be the only significant predictor of strength test improvement. Thus, it appeared that the primary effect of preparatory strategies was to narrow the attention of subjects.

In summary, it appears that anxiety-management and mental-preparation strategies may be used to adjust arousal and facilitate movement performance. However, further work is needed to determine the conditions under which mental strategies contribute directly or indirectly to optimizing the arousal–performance relationship. Research by Caudill and Weinberg,

and Jackson (1983) suggests that individuals differ with respect to the mental preparation strategies they prefer to use. In their study the performance of male and female hurdlers and sprinters was compared under each of three prerace conditions: psych up (i.e., by using any strategy they preferred), attention-placebo (i.e., estimating their HR and then being given bogus feedback that their estimate was accurate and they should expect a good time), and no mental preparation. Although no measures of activation/arousal were obtained, faster times were recorded for the psych-up condition than for the other two conditions. Follow-up interviews with subjects in the psych-up group revealed that individuals differed with respect to the preparation strategy they used (e.g., preparatory arousal, imagery, self-efficacy, attentional focus, relaxation/distraction). This suggests that a potentially fruitful line of investigation might be to allow individual subjects to select their own mental preparation strategies and then determine the effects of each on arousal and performance. Arousal might be expected to shift as a function of the preparation strategy selected (e.g., decreasing with relaxation/distraction and increasing with arousing self-statements).

Themes, Recommendations, and Implications

In this section, themes emerging from the literature reviewed in the previous section will be listed, followed by recommendations for future studies and implications for professional practice and society.

Emerging Themes

1. High trait-anxious individuals usually experience higher levels of state anxiety than do low trait-anxious persons.
2. The performance of some individuals is higher when their level of state anxiety is more similar to that of their normal level of trait anxiety.
3. The level and range of arousal associated with optimal performance differs among individuals.
4. The relationship between attention and arousal appears to be reciprocal.
5. Accomplished or experienced performers are often able to benefit from or make appropriate adjustments in the emotional arousal that precedes a performance bout.
6. Anxiety is a multidimensional construct (e.g., experimental manipulations influence some components of anxiety and not others).
7. Mental preparation/training may enhance a person's ability to optimize the arousal–performance relationship.

Recommendations for Future Studies

1. The arousal–performance relationship should be examined from both an intra-individual and interindividual perspective (e.g., Sonstroem & Bernardo, 1982).
2. The perception of the individual performer should be considered when developing operational definitions of task complexity and situational stress.
3. When examining the arousal–performance relationship for a particular sport, care should be taken to differentiate the various tasks involved (e.g., defense vs. free-throw shooting in basketball).
4. An individual's choice of mental preparation strategy (e.g., psyching up vs. relaxation) should be considered when examining its effects on attention, arousal, anxiety, or performance.

Implications for Professional Practice and Society

1. Individuals should be encouraged to "tune in" to the thoughts, feelings, and emotions that accompany various levels of performance of a motor task. In this way they will begin to realize the cognitive and affective antecedents of successful performance.
2. Participants should be exposed to a variety of techniques for adjusting arousal (e.g., relaxation, imagery, attentional focusing) and then be encouraged to develop their own arousal-adjustment plan.
3. For each motor task an individual must perform, relevant focus cues or phrases should be identified that can serve as reminders prior to and during performance. For example, a tennis player receiving serve might "look for the ball" coming out of the server's hand and then say, "There it is," each time she or he sees the ball rising above the server's head.
4. Situational stress can be minimized by emphasizing individual improvement and the process rather than the outcome of performance. For example, a basketball player whose role on the team is primarily to rebound should be encouraged to focus attention on the tasks of blocking out and achieving proper position.
5. Because stress and fun have been shown to be inversely related (Scanlan & Passer, 1978, 1979), sport organizers and coaches can do their part to facilitate an optimal relationship between arousal and performance for all participants by creating an environment that is challenging and enjoyable.

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ENHANCE PERFORMANCE THROUGH IMAGERY

by Robert Edens

Byron Scott, L.A. Lakers' forward, was going through one of the worst slumps of his career. His shooting percentage was at its lowest point ever. His confidence was so low he would pass the ball instead of taking a shot. Byron was caught in a downward spiral. The harder he tried, the poorer he performed. In desperation, Byron explored the use of imagery. After using an imagery program, Byron scored 22 points in his very next game.

Byron is just one of many top athletes who have discovered how imagery and visualization can enhance their performance. For example, Jack Nicklaus and Nancy Lopez both benefited from the use of imagery. Imagery worked for these top athletes; will it work for young, less-skilled players? *Yes!*

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Imagery is sometimes called visualization or mental practice. However, students need to do more than simply see pictures in their minds or practice movements in their heads. All of the senses are used in imagery; it's not magic, and it only works if you and your students believe it will.

How Does Imagery Work?

Try this experiment:
Stand up. (Really, try this. Go ahead, stand up.) Raise one of your arms so it is parallel to the floor and point at the wall in front of you. Keep your feet stationary, rotate from your waist, and slowly swing your arm around toward the wall behind you. Keep going until

Imagery works because, as far as your body is concerned, an imagined event is just as "real" as one that actually happens.

you can't go any further. Find a spot or object on the wall where your finger is pointing, remember it.

Now sit back down, close your eyes, and imagine that you are standing in the same spot. Be aware of how your body feels, hear any sounds that are going on around you. Imagine that your arm is out and you are rotating toward the wall. Imagine that your muscles are very relaxed as you move. Visualize that you are now at the point where you stopped before, but instead of stopping here, you move past the marked point. See your arm moving past this point farther and farther. Feel how relaxed your arm is; you can feel no tension in the muscles. Actually see the new spot on the wall where your finger is now pointing.

Now stand up again. Put your arm out in front of you and slowly swing your arm around behind you. Keep going until you can't go any farther. Look at your original spot and where your finger is pointing now.

More than likely, you moved past the first spot on the wall and closer to, if not past, the spot you imagined. You have just used imagery to enhance your ability to rotate

Imagery works because, as far as your body is concerned, an imagined event is just as "real" as one that actually happens.

Imagery Training

Imagery is a skill. Like any skill it takes time and practice to get the desired results. Differences in the imagery powers and abilities of individuals are certainly important factors in students' success. However, all students can improve their imagery powers through practice.

Many of your students have probably used imagery without realizing it. For example, when a student is shooting baskets, she may pretend there are only seconds to play and it's up to her to make the final shot. In her mind, she counts the seconds down: 4...3...2...1... She shoots, and makes the final shot! This is imagery.

Imagery can be introduced to students quite simply. For example, if you are teaching students how to dribble a basketball, ask them to close their eyes and imagine where their hands might contact the ball. Do some pretend dribbling. Ask them if they can see, in their minds, their hands contacting the ball.

Imagery is an excellent way to learn and reinforce physical skills. Your physical education students may even learn to transfer their imagery skills to other academic areas.

You can also teach students to use imagery to help them:

- relax,
- reduce anger and pain,
- increase self-confidence,
- set goals, and
- improve self-awareness.

You need to be sure your students understand that imagery works best when all the senses are used in the process. And that imagery can be as powerful as your mind allows.

To teach students to use imagery, be as descriptive as possible. Use descriptive phrases and adjectives such as "bright," "vivid," "tingling," and "relaxed like a wet

noodle," when asking students to produce images.

No Distractions

Although students experienced with imagery can use it amid great distractions, students' initial imagery practices should have no distractions. Since their imagery skills are not developed yet, students need a setting where they can fully concentrate on their images. Try to choose a place where you and your class will not be disrupted. A spot on the far end of a field as far away from any distractions as possible is a good place to go. If confined to a noisy gym, stand in one of the corners and have the students sit facing you with their backs to the main gym floor. As their skills improve, students will be able to use imagery in situations with multiple distractions.

Relax

The students should be as relaxed as possible, prior to each session. Releasing tension is very important to the success of imagery training. Students will have to be guided through some relaxation techniques during the early stages of imagery training. For example, prior to the start of any skill trial, teach students to close their eyes, take a deep breath, drop their shoulders, and let their arms hang down loosely at their sides. When students are relaxed, images are more likely to be clear and under control.

Reduce Resistance

Some students are going to resist this type of training, but if you try to make the experience meaningful for all students, they may learn to use, and enjoy, imagery. If students have never used imagery, use personal situations that are meaningful to them. For example, ask students if they have ever imagined themselves jamming the ball like Michael Jordan, or hitting a forehand like Martina Navritalova. Ask them for examples of when they have used imagery in a physical education or sports environment.

How to Unlock Students' Potential Through Imagery

To help students control their images, have them start with an image they are very familiar with, like their own bedrooms. Ask each one to move around the roo: seeing, smelling, hearing, and touching different items. Can they make the images brighter? Can they make the smells stronger? Can they feel the softness of their own pillows? What posters are hanging on the wall? Are they able to pick up and move items around?

You can help students hone their imagery skills by focusing on these areas:

Sensory Awareness. Physical education is not just skill performance. It is seeing, hearing, feeling, and doing. During imagery training, students need to learn to tap all their senses. When you ask students to visualize a situation, have them incorporate the sights, sounds, and feelings associated with the experience.

To increase students' sensory awareness, ask them to slow down their imagery processes; to focus on all of their senses as they visualize a performance. They should hear balls bouncing, other students yelling, whistles blowing, and their hearts pounding. They should focus on how their bodies move through the gym, jump into the air, or dive into the pool. Ask them to focus on how hot, cold, or sweaty they are at any moment. Ask them what smells are associated with each situation.

Vividness. This does not just refer to the visual aspect of imagery. The vividness of sounds and feelings are equally important. Imagery practice sessions should be designed so that students can enhance the vividness of the images. To be certain this happens, continually ask students to make their mental pictures more colorful and bright, or the sounds louder, or the feelings more real during their practice sessions.

Control. Students need to increase their abilities to manipulate the images they produce. For example, if a student is rehearsing a downhill ski race, and each time he runs the gates, he falls at the fifth gate, his confidence will be very low when he actually makes the run. However, his confidence will probably be higher if he uses imagery to visualize himself not only going past the fifth gate, but under control and faster than before.

Four-step Training Session

Once students understand how imagery works, have them try to use it on a particular skill. Adapt this four-step method to your particular unit or focus.

Start Your Own Imagery Program

To start an imagery skills program, you should:

- **Set up specific times to practice imagery skills.**
- **Discuss how students can use imagery away from physical education class. For example, giving a speech or dealing with another student.**
- **Use imagery sessions before performances.**
- **Help students relax by playing soothing music. Encourage students to make musical tapes for themselves.**
- **Have students use imagery any time they are not actively engaged in skill performance.**
- **Talk to students about their images and how the imagery process works for them.**

Dribbling the soccer ball

Step 1, See It — Have the students sit comfortably on the field, with their eyes closed. Ask them to see themselves standing on the field with a ball at their feet. Have them imagine they are looking down the empty field. Describe in vivid detail your field: where the bleachers are, the lines on the field, etc. In their minds, they push the ball with the inside part of their right foot, the ball goes just a few feet in front of them, and they beg[illegible] touch the ball with their left [illegible] more feet ahead of them. Cont[illegible] until the student reaches the fiel[illegible]

Step 2, Hear It — Next, have the [illegible] through the same visualization pro[illegible] *every* sound present during their perio[illegible] Ask students what they hear. Some may s[illegible] hear birds chirping or trucks passing by on [illegible] highway. This is good. However, it is importa[illegible] to bring them back to concentrating on the sounds associated with the activity; ask them to focus on the sounds only associated with the activity. Ask questions like: What does the ball sound like when it connects with the foot? What sound is made when you push the ball with your instep? What sounds are made when your feet touch the grass as you run? Are these sounds loud or soft? It may take several trials to get all the sounds that are associated with this image. However, try to make sure that students do not get so caught up with the sounds that they forget to focus on the skill of dribbling. Again, students should continue until they reach the opposite end of the field.

Step 3, Feel It — Have students go through the same scene, adding their feelings to the visualization. Ask them to feel the ball as they gently touch it with their feet. They should feel themselves move down the field, cut left, move right. They should feel each stride in the leg with which they push off. Once again, this may take several trials to accomplish.

Step 4, Do It —Ask the students to physically practice the skill. Have them dribble the ball down the field trying to emulate the images they just rehearsed.

As students progress through this image, they can add defenders to the situation. They can imagine they are performing precise moves or sequences of moves to outmaneuver their opponents.

Outcomes

The outcome of the skill is just as important as the execution. Students may want to shoot and score at the end of the dribbling image. Ask students to be specific: Where does the ball contact the foot? What feelings are associated with the kicking motion? Where does the ball hit the net? For example, in the high right corner.

Imagery training takes time. Try not to rush the process; the image's quality is more important

than how quickly it is completed. To help students create detailed, quality images, be deliberate, clear, and precise in your instructions. Ask questions and make statements that help students imagine "real" pictures. For example, when describing the gym, describe the sounds echoing off the walls, or the smell of floor varnish mixing with the rubber from basketball shoes.

Remember that no two students are the same. Some may be able to produce an image that contains all three senses immediately. Others will have to go step by step to accomplish the total image. Some students may be more successful if they start from the feelings aspect, then move on to the auditory part of the image. This is okay: allow students to produce images in whatever way works best for them.

What if the Image is Negative ?

Sometimes students' images do not produce the desired behavior or outcome. In this case, students should imagine an extremely large "X" through the incorrect image. Or, the students should say to themselves, "Stop," and go back to the beginning of the process until they are producing the correct images.

If the students cannot seem to stop an undesired image, they can shrink it. If an undesired behavior occurs, students can imagine they are pushing the images farther and farther away from them until the images become tiny specks in their minds. They should imagine the image getting smaller and smaller. At this point, they should let the images simply fade away and then try to produce the desired performance image.

You can use imagery in any physical education unit. It is not something to be used once and discarded. If your students practice and continually use imagery, they will probably become more proficient at using it. And the time they require to access these images will diminish. Eventually, they should be able to create vivid, easily controlled images with very little effort.

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Developing a Mental Skills Training Program

By Greg Sargent
Sports Psychologist, Mind & Body
Balance, Victoria

Introduction

This is the fourth article in the current series designed to assist sports people in developing effective mental and psychological skills, interestingly, a recent Sports Coach Reader Survey highlighted the thirst for information in this particular area: sport psychology (with 51% of preferences) received the highest interest when readers were asked which area they would most like to see more of in the magazine. (Sports Coach — Editor survey — 1996, 19(3), p. 3). This article continues to respond to this need while completing the description of the imagery skill introduced in the previous issue.

Review — Imagery — Vivid Pictures

The previous article examined the *Vivid* part of *Vivid Pictures* which is the memory aid devised for Imagery. This is where V stands for vividness (for effective imagery one must create images which are vivid and realistic); I for introducing imagery (coaches should employ a wide range of introductory activities in order to sell the activity to their athletes); V for variety of senses (imagery is most effective when one uses all the senses); I for internal perspective (effectiveness is enhanced when experienced from 'one's own eyes') and D for distraction free (during the learning phase it is important to create an environment free of distraction). This article discusses the *Pictures* part of Vivid Pictures.

Remember, imagery works by creating an experience in one's subconscious mind upon which the mind acts — it is about programming control. As suggested it seems to work because the mind has difficulty differentiating between what is imagined and what is real. The power of the technique is probably best illustrated by the story of Major James Nesmeth. Major Nesmeth was a prisoner of war for seven years and during that time visualized playing a round of golf each day. He recreated the whole course by experiencing every last detail of the round. (He saw himself in his golf clothes, he smelt the fragrance of the trees and the freshly trimmed grass, he simulated different playing conditions, he felt the grip of each club in his hands as he played his ideal imaginary shots while watching each shot go perfectly down the fairway or across the green.)

Upon release from his imprisonment, Major Nesmeth played a 'real found' of golf and amazed everybody by reducing his score by 20 shots down to 74! (A Second Helping of Chicken Soup for the Soul, Canfield and Hansen, Health Communications Inc: Fl; 1995). A truly remarkable story reflecting the power of imagery!!

P: Personalized Program

Personalized refers to the need for the imagery program to be realistic while suiting the specific requirements of the individual athlete. While some athletes might experiment with the commercially available tapes and resources, they would benefit most from a program matched to their individual and sporting needs. A recent illustration is with the AIS netball program. Coaches and players were heavily involved in creating personalized programs specifically prepared for court position, game strategies and individual needs. One note of warning, however, imagery cannot guarantee performances beyond one's physical capabilities. (It would be unrealistic to imagine running a 45.2 second 400m when one's personal best was 51.5!)

I: Incorporate into Training

An imagery component should be included during actual training (e.g.. prior to commencement of a new drill or set play, ask the group to run the drill moves though in their minds) as well as away from the sporting environment (e.g.. at home). If imagery is to be successful, athletes should see it as an integral part of their daily program and not an extra add-on-chore. Training exercises should be simple and chosen to demonstrate the value of the technique early in the development of the program. Choose a relatively simple sport skill which readily lends itself to imagery (e.g.. closed skills are ideal, such as free-throw shooting in basketball, goal-kicking in football, goal-shooting in net ball, serving in any racquet sport). Then include imagery as a part of the routine preparation for this skill. Importantly, effective imagery requires regular practice over a period of time. One's training program might require at least 10 minutes daily practice at first before extending to training and competition environments. To be effective, initial daily practice is essential even when performance change is not clearly forthcoming.

C: Control and Clarity

Both control and clarity are major features of successful imagery programs. Control relates to the ability to be able to change the speed and outcome of one's imagery at will. In effect, by controlling one's imagery, the athlete should be able to manipulate images as if using one's own mental video recorder. For example, the tennis player with clear and controlled imagery would be able to see the ball bounce in a certain spot on the court. If this is not achieved with pinpoint accuracy, the athlete should rewind the image and replay it until the perfect and required image is obtained. Clarity is attained by holding very clear and well described pictures of the goal of one's program. For example, the netball goal-shooter 'sees' the swish of the net' with each goal attempt. As an extension, she manipulates and controls the images in her mind (slowing it down, shooting from different spots, etc.) all the time imagining positive outcomes.

T: Triggers

Triggers are techniques employed to focus athletes onto important features. They may include the use of cue words (e.g.. the sprinter uses 'varoom' to recreate the feel of an explosive start), imaging objects (one's favorite pair of spikes), important positions when competing (the rower assumes the seated position in a boat with paddle in hand while recreating the powerful thrusts of the blade) and even the use of video. (A golfer might videotape a number of perfect drives which are then copied three or four times onto a tape. The golfer then previews the tape, recreates the exact image of the perfect drive in his mind and uses this image as a trigger for a faultless drive during competition.

Cue words as triggers are also particularly effective. An interesting example is the team cry of a water polo team: 'Rock of Gibraltar" which was used to signify a steady rocklike state when under pressure. Atlanta Olympic silver medalist, Cathy Freeman, also utilized a powerful trigger by pasting the number 48.6 on her wall at home. The fact that Freeman achieved this goal exactly further supports the power of this technique.

Remember, the key to an effective trigger is the ability to program an exact image.

U: Uses

Imagery has an enormous range of applications, including the practice of sports skills, learning new skills, problem solving, creasing awareness levels, controlling heart rate and body physiology, learning strategies (e.g.. the next set play in a basketball game), evaluating mistakes (e.g.. after missing an easy stomping change in cricket), recovering from injury (e.g.. seeing the muscle fibers actually knit together), and for familiarization (e.g.. taking the softball player to a finals venue in their mind) and for controlling arousal (seeing oneself casually sunbaking on a Fijian Island).

R: Routine

Imagery should become an essential component of your performance routine. It could be employed immediately prior to skill production (as in the basketball free throw where the player closes his eyes while imaging a successful attempt) or after the skill (the tennis player replays a missed smash in his mind imaging performing the perfect shot). You may even develop a more extensive pre-performance routine for a group where the rowing eight first relax, then imagine the complete race strategy, recreate past successful performances and then mentally program successful achievement of specific competition goals.

E: Evaluate

Athletes should regularly evaluate progress with their imagery program. This might include examining strengths and weaknesses of the program as well as obstacles confronted and the strategies used to deal with them. Athletes need to become 'inspectors' of their own skills by recreating and reliving competitive situations in their minds. In the quest for excellence, athletes should regularly record progress thorough the program by using an imagery logbook. This is where athletes monitor daily progress across a variety of areas (such as vividness, clarity control, impact of the imagery, etc.). As with any training diary, these logs also produce valuable feedback which can be used to evaluate overall progress with the program.

Clearly, the goal of this type of evaluation is to insure that athletes become more attuned to the thoughts, feelings and emotions which lead to successful performances.

S: Success

For an imagery program to be successful, athletes must believe in them. Scientific and anecdotal evidence demonstrates that an underlying belief in the program is essential for translation to real results on the sports field.

To attain improved performances, athletes must picture positive and successful images achieving the desire outcome. Some athletes have difficulty with this, continually seeing mistakes and errors in their imagery (e.g.. the golfer who continually sees the ball slicing off into the water as if drawn by a magnet.) These athletes must understand that they are indeed in control of their images (and not vice versa). To counter the problem with errors, the athlete is advised to stop the image, then rewind it before replaying the same skill in perfect reproduction. It is as if the athlete has their own personal remote control.

Conclusion

Successful coaches and athletes appreciate the power, value, and versatility of imagery. When used correctly, it programs proper technique, corrects performance errors and insures an optimal state of psychological preparation. Evidence supports imagery as benefiting self-image, enhancing self-confidence and increasing feelings of control. Given that many of the best athletes endorse imagery as a valuable and powerful technique, it would seem imperative that those aspiring for success can not afford to be without it!

Keep up the good work.

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Psychological skills for enhancing performance: arousal regulation strategies

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ABSTRACT

GOULD, D. and E. UDRY. Psychological skills for enhancing performance: arousal regulation strategies. *Med. Sci. Sports Exerc.*, Vol. 26, No. 4, pp. 47[illegible]5. This review summarizes and integrates current empirical and th[illegible]al research on arousal regulation strategies for enhancing athletic [illegible]formance. The need to view arousal as a multifaceted construct made up of both cognitive and physiological components was emphasized, as well as the importance of understanding arousal-performance relationship theories that go beyond a simple inverted-U notion. Categories of arousal regulation strategies were discussed and included: arousal energizing techniques, biofeedback techniques, relaxation response strategies, cognitive behavioral interventions, and mental preparation routines. It was concluded that these techniques can be effective in influencing arousal and facilitating performance. However, additional research (especially evaluation research) using more rigorous methods, determining how and why interventions work, using case study methodologies, identifying personality and situational factors influencing arousal regulation effectiveness, and identifying the most effective means of teaching arousal regulation is needed.

AROUSAL REGULATION, STRESS, STRESS MANAGEMENT

The ability to regulate one's level of emotional arousal is often credited with positively or negatively influencing an athlete's performance. In fact, athletes themselves often refer to the fine line between getting psyched up and being psyched out in competition. Given these feelings, it comes as no surprise that sport psychology specialists have been interested in better understanding the effects of arousal on sport performance, as well as the athlete's ability to regulate arousal. In a recent survey of elite athletes and coaches, for example, arousal regulation, stress management and relaxation were rated as some of the most important sport psychological topics of interest (14). Similarly, these techniques have been found to be most often discussed in applied sport psychology books and have been shown to be some of the most frequently used strategies by practicing sport psychologists working with elite athletes (16,46).

0195-9131/94/2604-0478$3.00/0
MEDICINE AND SCIENCE IN SPORTS AND EXERCISE

Submitted for publication July 1992.
Accepted for publication March 1993.

Sport scientists interested in assisting athletes in enhancing their performance through arousal regulation are faced with three issues. These include: 1) identifying what emotional state or states are being discussed when athletes refer to arousal, 2) understanding the relationship between arousal and performance, and 3) identifying techniques that can be used to regulate one's arousal and achieve the emotional state needed for best performance. Unfortunately, space limitations prohibit a detailed review of this literature and no such review is needed as recent comprehensive reviews have been conducted on these separate topics (5,7,13,19,31,33,38,48). A need exists, however, to integrate and summarize the research literature across these areas because arousal regulation in sport can only be understood when this divergent literature is integrated. Hence, this review is designed to summarize and integrate the research pertaining to each of these topics, outline implications for guiding practice and to identify future arousal regulation research directions.

UNDERSTANDING THE NATURE OF EMOTIONAL AROUSAL

Before sport psychologists can assist athletes in better regulating arousal levels needed for peak performance the nature of the arousal construct must be understood. Emotional arousal is defined as a "general physiological and psychological activation of the organism that varies on a continuum from deep sleep to intense excitement" (pp. 274–275, ref. 13). From a practical perspective, then, arousal refers to how intense, charged-up, nervous, and emotionally activated an athlete is before or during performance.

Although most researchers have adopted the general definition of arousal presented above, it is difficult to interpret the literature because this construct has been operationalized in so many different ways. In the past 20 yr, for example, studies linking arousal to performance have assessed the arousal construct via global state anxiety (43), a measure of how nervous or apprehensive one feels at a particular time, cognitive state anxiety (4), a

measure of how worried one is at a particular time, somatic state anxiety (15), a measure of one's perception of his or her physiological activation, as well as a host of physiological assessments such as heart rate (28) and brain wave activity (27). Unfortunately, while these all are appropriate methods of assessing arousal, when used alone they do not adequately assess the total construct. For example, heart rate assessments detect changes in athletes' physiological activation, but do not necessarily reflect changes in psychological activation (e.g., worry). Similarly measuring cognitive state anxiety or worry assesses the psychological activation side of arousal, but does not necessarily reflect increased physiological activation. Finally, because these varying arousal measures have been shown to related to performance in different ways (13), using only one type of assessment may give a false picture of the total arousal-performance relationship. Thus, to adequately assess arousal as a whole, both physiological and psychological assessments are needed (13).

Not only is there a need to assess arousal using both physiological and psychological assessments, but after a detailed review of the empirical and theoretical literature in this area, Gould and Krane (13) have argued that it is a mistake to conceptualize arousal as a unitary construct. Instead, they argue that arousal should be viewed as a multidimensional construct that contains a physiological arousal component and a cognitive interpretation-appraisal component. Furthermore, the cognitive interpretation-appraisal component consists of a cognitive appraisal of one's physiological arousal (somatic state anxiety), negative affect associated with one's cognitive appraisal of increased arousal (cognitive state anxiety) and positive affect associated with one's cognitive appraisal of increased arousal (paratelic state of excitement). Therefore, arousal can best be thought of a complex blend or mixture of increased physiological and psychological states and not as a single state. For this reason, it is imperative that assessments of arousal be conceptually linked to a multifaceted (as opposed to unitary) arousal construct and that future investigators specify how they are defining and operationalizing the arousal construct.

Viewing emotional arousal as a multidimensional construct comprised of a variety of both physiological and cognitive components has direct implications for arousal regulation. From a practical perspective, applied sport psychologists assisting athletes in better understanding mental preparation would do well to become more aware of the multifaceted emotions involved in arousal regulation as opposed to assuming that arousal is a relatively simple, unitary construct. For example, the first author has found it very useful to have athletes become more aware of the recipe of activating emotions and cognitions (e.g., physical activation, worry, concentration, positive affirmations) that influence performance, not just global arousal. Similarly, Burton (5) has indicated that the various arousal regulation techniques may differentially influence anxiety/arousal depending on whether they are somatically or cognitively based. Thus, viewing arousal as a complex multifaceted construct has important implications for advancing theory and practice in the arousal regulation area.

THE RELATIONSHIP BETWEEN AROUSAL-RELATED STATES AND PERFORMANCE

The term arousal-related states is used to reflect the multidimensional nature of arousal. Historically, investigators have examined the arousal-performance relationship using single physiological or self-report measures, while more recent investigaors have examined the arousal-performance relationship simultaneously using multidimensional arousal components such as cognitive state anxiety, physiological activation, and somatic state anxiety. Although a detailed examination of the arousal-perfomance relationship research is beyond the scope of this review, arousal regulation researchers and practitioners must be aware of current developments in this area. For the last two decades the inverted-U arousal-performance notion has been almost unquestionably accepted by sport psychology researchers. This hypothesis specifies that low levels of arousal result in poor performance. However, as arousal increases, performance improves until an optimal or moderate level of arousal is reached at which point peak performance results. Further increases in arousal beyond this optimal level result in performance declines. Recently, the inverted-U hypothesis has come under considerable criticism (13,21,33,38). In particular, the inverted-U hypothesis has been criticized because it provides no explanation for the arousal-performance relationship, the failure for it to view arousal as a multidimensional construct, the lack of convincing evidence to support its predictions, and even the possibility that it cannot be adequately tested. This discontention has lead to the proposal of new arousal-performance theoretical explanations as possible replacements for the inverted-U hypothesis.

Four theories or hypotheses have emerged as possible alternatives to the inverted-U hypothesis. These include catastrophe theory (21), Hanin's (20) optimal zones of functioning hypothesis, multidimensional anxiety theory (5), and reversal theory (25). Unfortunately, space limitations prohibit a detailed discussion of each of these views here; for such a discussion the reader is referred elsewhere (13). Catastrophe theory, however, will be briefly discussed to illustrate the utility of understanding these emerging alternative theories and hypotheses.

Instead of predicting a relatively simple and symmetrical inverted-U relationship between arousal and performance, catastrophe theory contends that performance is determined by the complex interaction of physiological

arousal or activation and cognitive anxiety (see fig. 1). Specifically, as can be seen by the back portion of Figure 1, it has been predicted and found that physiological arousal or somatic anxiety is related to performance in an inverted-U manner under conditions of low cognitive anxiety or worry (22). However, when cognitive anxiety is high (the front portion of Fig. 1) increases in physiological arousal are related to performance increases up to a certain point, after which a rapid deterioration of performance or a catastrophe occurs (22). In other words, the relationship between physiological arousal and performance is markedly different depending on the amount of cognitive anxiety one experiences. It must be noted that some catastrophe notion theorists contend that physiological arousal and cognitive4 anxiety interact to influence performance; others feel that it is the interaction of somatic anxiety and cognitive anxiety that influences performance (13).

Moreover, once overarousal has occurred, it is suggested that performance deteriorates dramatically as compared with the steady decline predicted by the inverted-U hypothesis. Catastrophe theory, then, predicts a very different relationship between an athlete's physiological arousal and performance depending on her or his level of cognitive anxiety. This suggests that to be effective in facilitating performance arousal regulation strategies must account for the complex interactions between varying levels of cognitive anxiety and physiological arousal.

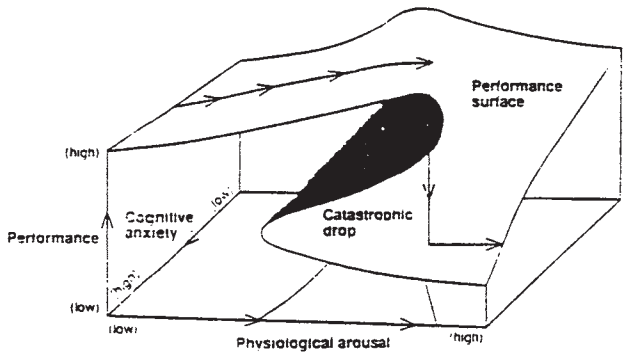

Figure 1—Catastrophe theory arousal-performance relationship.

Although extensive tests of catastrophe theory have not been conducted, initial evidence is promising. Hardy and Parfitt (22) found that the performance of basketball players and bowlers dramatically deteriorated under conditions of increasing physiological arousal and high cognitive anxiety; these same performance decrements were not found under conditions of low cognitive anxiety and no support was found for the inverted-U hypothesis. Therefore, based on this initial evidence, catastrophe theory appears to be a good model for guiding future arousal-performance research.

While empirical tests of many of these new arousal-performance views and theories, like catastrophe theory are only now emerging, taken together they have a number of important implications for those interested in helping athletes regulate arousal. First, the majority of these views contend that arousal is a multifaceted phenomenon that consists of both physiological arousal and an athlete's cognitive interpretation of that arousal (e.g., anxiety, confidence). Second, most of these theories assert that some optimal level of arousal leads to peak performance, but the optical levels of physiological activation and arousal-related cognitions are not necessarily that same. Third, as evidenced by catastrophe theory, the interaction between levels of physiological arousal and arousal-related cognitions (e.g., cognitive anxiety) appear to be more important than absolute levels of each. That is, knowing levels of cognitive anxiety and physiological arousal are not nearly as important as knowing combined values of each of these variables when relating them to performance. Finally, while an optimal level of emotional arousal components is thought to be related to peak performance, it is doubtful whether this optimal level is at the midpoint of the arousal continuum and that excessive arousal causes low, gradual performance declines as predicted by the inverted-U hypothesis.

To summarize, these emerging theories imply that athletes must become aware of and determine that optimal recipe of physiological activation and arousal cognitions which lead to peak performance. Moreover, practicing sport psychology specialists (34, 45) suggest that this can be accomplished by having athletes retrospectively rate and compare multidimensional arousal components (e.g., cognitive anxiety, physiological arousal) between previous good versus poor performances. In doing so, the athlete identifies his or her optimal level of arousal components needed for best performance. Arousal regulation strategies can then be used by the athlete in achieving the appropriate levels of and/or mixtures of these arousal components. Finally, it just be realized that these blends of optimal arousal components may require that some arousal components (e.g., physiological activation) be elevated while other arousal components (e.g., cognitive anxiety) be reduced. Thus, as Raglin and Morgan (39) have so strongly indicated simply instructing athletes to relax or lower physiological arousal without any consideration to the amount and mixture of arousal-related cognitions needed for best performance is inappropriate.

AROUSAL REGULATION STRATEGIES AND THEIR EFFECTIVENESS

Arousal-performance relationship research and theory suggest that athletes must find the appropriate mixture of arousal-related states that lead to best performance. Moreover, if an athlete is not at this ideal state, strategies must be employed to regulate arousal. In particular, there will be times when an athlete needs to increase his or her arousal level and other times reduce it.

Unfortunately, little original research has been conducted on the efficacy of arousal energizing strategies in sport. This probably results from the fact that athletes have more difficulty from becoming overaroused during competition than trying to become more aroused (37). There are times, however, that athletes must become more energized if they are to achieve their optimal level of arousal. Hence, this is an important area needing further study.

The little research that has been conducted in this area has focused on identifying and describing mental preparation methods used by athletes (18.41) and then examining whether these techniques actually enhance performance in controlled laboratory studies using nonathletic populations. For instance, in laboratory experiments involving both between and within subjects designs Weinberg, Gould and their colleagues (17, 47) demonstrated that preparatory arousal techniques (e.g., getting mad, charged-up) facilitated performances more than using attentional focus, control-rest, imagery, and cognitive distraction conditions, on strength tasks. However. Arousal elevation techniques were not found to be effective on motor tasks requiring more skill and timing. These results indirectly support the notion that optimal arousal levels are task specific and emphasizes the importance of testing the efficacy of arousal regulation strategies across tasks. In addition, thee studies suggest that it is possible to elevate arousal (state anxiety) and enhance performance. Additional research, especially field studies using experienced athletes are badly needed, however, before definite conclusions can be derived in this area.

Arousal Reduction-Stress Management Strategies

When compared with arousal energizing strategy research, much more attention has been focused on identifying strategies to reduce arousal with the goal of enhancing performance. Techniques which have received the

most attention include: 1) biofeedback techniques, 2) relaxation strategies, 3) cognitive behavioral interventions, and 4) mental preparation routines. The research in each of these areas will be briefly summarized below.

Biofeedback interventions. Biofeedback (BF) is a special case of operant learning that involves the use of instrumentation that provides individuals with information not ordinarily available to them about their physiological states. This information is provided to enable individuals to modify their physiological processes (9). A variety of measures can be used to provide BF and include cardiovascular, electromyogram (EMG), electrodermal (EDR), and electroencephalogram (EEG). Within the context of sport performance EMG and cardiovascular measures have been the most widely used modalities (49).

The efficacy of BF in enhancing sport performance has recently been reviewed by Zaichkowsky and Fuchs (49). Of the 42 studies incorporating a variety of BF interventions, 83% reported improvements of some kind (e.g., in arousal control, performance, or both). Despite the encouraging nature of these results a number of methodological concerns exist which warrant caution in interpreting findings.

One way future BF research might be strengthened is by providing feedback from multiple physiological systems within the body. It has been repeatedly demonstrated that individuals tend to differ in terms of the physiological systems in which they manifest stress. For example, one individual may respond to stress through increases in heart rate whereas another individual may manifest stress through increases in muscular tension (2.26). This phenomenon is known as individual response stereotypy. Knowing that individuals may respond to stress within different physiological systems, it may be helpful to BF the responses of more than one physiological system in order to increase the likelihood that the feedback provided will be relevant to the learner (27).

A second methodological issue is that many studies have used an arbitrarily determined number of intervention sessions to test the efficacy of BF. When a arbitrary number of sessions is used, the researcher cannot be certain that the learner has been successful in learning the BF technique(s) of interest. An alternative would be to use "criterion testing," which would require a learner to obtain a predetermined level of competency (49). For example, for an individual who tends to respond to stress through increases in heart rate, the criterion needed before an intervention was implemented may be (among other goals that relate to the BF from other physiological systems) to lower his/her heart rate by 10 bpm. Use of this type of criterion testing would serve as a manipulation check to verify that a certain level of mastery had been acquired before the efficacy of the intervention was assessed.

Another methodological concern that few researchers have examined is the maintenance effects of BF interventions. In the field of psychotherapy, some have argued that therapeutic effects which cannot be maintained for at least 6 months are of questionable value (10, 29). In sport-related BF research it is not currently known to what extent the results of interventions can be retained over time, and which, if any, of the BF modalities are most resistant to returning to baseline levels.

A final methodological consideration in the BF research focuses on the way the BF is conveyed to the learner. It has been observed, not surprisingly, that BF is most effective when the BF instruments used are "novel" or "exciting" to the learner (49). In an attempt to maintain learners' interest, BF displays have become increasingly sophisticated and creative. Some researchers have called

for the use of control groups in BF studies to allow researchers to separate the BF from the expectancy effects that may result from the mere use of sophisticated technology (28).

Relaxation strategies. Relaxation refers to those changes in the body that are the exact opposite of the "fight or flight response" of the sympathetic nervous system. More specifically, relaxation is associated with decreases in oxygen consumption, heart rate, respiration rate, and skeletal muscle activity as well as increases in skin resistance and the production of alpha brain waves (1,6). A common objective of relaxation based interventions is for the learner to be skilled enough in inducing relaxation that he or she is able to relax at will when encountering a stressful situation. Techniques, however, differ in the way they attempt to achieve these objectives. Two of the most commonly used relaxation response interventions are autogenic training (40) and progressive relaxation (23).

Autogenic training is a self-hypnotic technique that consists of a series of exercises used to elicit two bodily sensations: warmth and heaviness. With progressive relaxation the individual systematically tenses and then relaxes muscles concentrating on the contrasting bodily sensations while at the same time directing attention to pleasant images of nature, etc. (30). Because progressive relaxation uses an active as compared with the more passive approach of autogenic training, it has been suggested that athletes find progressive relaxation more appealing (28). However, it should be noted that autogenic training is the preferred mode of arousal regulation in many European countries.

With respect to the empirical support for the various relaxation technique interventions, at this time strong conclusions regarding their effectiveness are not possible. In a recent review of relaxation-based interventions (including cognitive behavioral interventions involving relaxation), Greenspan and Feltz (19) indicated that positive effects on performance were obtained in only two of nine interventions where causality could be inferred. However, in an additional five studies where the inference of causality was questionable, all the interventions showed positive performance effects. Taken as a whole, the results suggest that performance enhancement resulting from relaxation based training is possible. However, caution is warranted in interpreting these results because of the failure to establish causal relationships between relaxation training and improved performance in much of the research.

Several limitations exist in much of the relaxation-based intervention research. One limitation results from the infrequent use of manipulation checks (49). A second concern is that, similar to many of the BF studies, the retention effects of relaxation based interventions are rarely assessed making it difficult to judge their long-term efficacy. In addition, it remains unclear to what extent it is the relaxation interventions *per se* that are responsible for the more appropriate arousal levels being attained. It has been noted (34) that relaxation interventions by definition involve the process of bringing physiological processes under control. However, the process of bringing physiological functions under control may bring about increases in mastery, self-efficacy, as well as other cognitive and affective variables. Thus, additional research is needed to determine the potential contributions made by changes in these cognitive variables.

Cognitive behavioral interventions. In contrast to relaxation-based interventions which focus primary attention on lowering physiological arousal, cognitive behavioral interventions emphasize cognitive restructuring techniques combined with physical relaxation and imagery in an effort to assist an athlete in lowering arousal and enhancing performance (5,31). Special attention is placed on replacing negative self-statements and images with positive self-affirmations and images of desirable performance. The three most popular programs used in the sport domain include stress inoculation training (SIT) (32), stress management training (SMT) (42), and visuomotor behavioral rehearsal (VMBR) (44).

Space limitations prohibit detailed descriptions of these programs. SIT however, will be briefly discussed to provide an example of what these programs entail. SIT grew out of clinical psychologist's Meichenbaum's (32) efforts to develop an anxiety and stress management treatment program that would generalize across causes of anxiety. It emphasizes self-control skills, which when applied to sport, consists of the same seven components that are used with any anxiety problem. As described by Mace (31) these include: 1) teaching athletes' how their self-talk influences their emotions and behavior; 2) training in self-monitoring of thoughts and images and how these influence stress; 3) problem solving skill training; 4) modeling of appropriate imagery and self-statements; 5) further modeling, as well as mental rehearsal and encouragement of positive self-talk/evaluation, attentional skills, and coping; 6) relaxation training, behavioral rehearsal, and coping imagery training; and 7) assignments that expose athletes to increasing levels of manageable stress where the above skills are employed.

Whether SIT, SMT, or VMBR is the intervention of choice, the typical research paradigm in the area involves having a randomly assigned or matched group of athletes participate in a series of cognitive behavioral intervention sessions while nonexperimental subjects participate in the same activity, but do not receive the intervention. Stronger studies utilize placebo control conditions to counteract expectancy effects and manipulation checks to determine whether the interventions actually lowered the targeted psychological states (e.g., anxiety). After completion of the intervention subjects usually perform in a stressful competitive situation and assessments of arousal-related states and performance are made

and compared between the experimental and control athletes.

Recent comprehensive reviews (5,19,31) and a meta-analysis (48) of the effectiveness of cognitive behavioral interventions have clearly shown that these interventions can be effective in helping athletes lower arousal-related states. Unfortunately, not all studies have examined performance as a dependent variable or in some cases subjects reported feeling less anxious, etc., but this has not necessarily been accompanied by enhanced performance. The reviewers have noted that these conclusions must be viewed cautiously until more research is conducted. Studies examining elite athletes and investigations utilizing manipulation checks and placebo control groups are especially needed.

Mental preparation routines. Recent in depth interview studies with Olympic athletes (12,36) have identified the development and consistent adherence to preperformance mental preparation routines (systematic, routinized patterns of physical actions and preplanned sequences of thoughts and arousal-related cues) as being a critical factor discriminating between more versus less successful athletes. For example, an elite wrestler may have a mental preparation routine that involves isolating himself from others physically, warming-up in the same way before every match, visualizing himself wrestling his opponent, and repeating specific self-statements ("move and penetrate") just before taking the mat. Adherence to this routine is associated with performance success while failure to adhere to it (e.g., failure to isolate oneself, use imagery, repeat self-statements) often results in inferior performance. It is suggested that these routines facilitate performance by helping athletes divert their attention from task-irrelevant to task-relevant thoughts and by assisting them in achieving optimal arousal levels (3).

Although controlled empirical studies of the use of these techniques in arousal regulation are only now beginning, initial evidence is promising. In a series of studies with golfers, for example, Crews (7) and Crews and Boutcher (8) have shown that subjects can be taught to develop routines and, in turn, facilitate their performance. Based on this initial research, the use of mental preparation routines for arousal regulation and performance enhancement looks fruitful. However, more studies need to be conducted that link the development and use of such interventions directly to arousal subcomponent measures before definitive conclusions can be derived.

An especially important direction for future mental preparation research focuses on examining the "automaticity" of mental preparation routines and coping strategies. Recent research (11,12) has revealed that more successful Olympic performers differed from their less successful counterparts not so much in the types of strategies utilized, but in the degree these strategies were learned or automatized. Hence, being able to automatically initiate mental preparation and coping strategies without a great deal of conscious effort may be a critical variable in arousal regulation and performance enhancement.

CURRENT STATUS AND FUTURE DIRECTIONS IN AROUSAL REGULATION RESEARCH

Several conclusions are evident from integrating the current research on the nature of arousal, the arousal-performance relationship and arousal regulation strategy effectiveness. First, arousal regulation interventions can be effective in influencing arousal and facilitating athletic performance. To maximize the effectiveness of such interventions, however, sport psychologists must recognize the multifaceted nature of the arousal construct and help athletes determine the optimal recipe or mixture of arousal components that lead to best performance. Second, integrated interventions that are designed to influence both physiological and cognitive components of arousal appear to be some of the most effective interventions because they influence more of the varied components of the arousal construct. Mere physiological reductions in arousal may not be the most effective strategies as they may lower the physiological arousal component below the optimal level and/or have little effect on the athletes' cognitions. Finally, preperformance mental preparation routines have been associated with superior performance in elite athletes and are thought to facilitate performance via arousal regulation and subsequent attentional control.

Although substantial gains have been made in arousal regulation research in recent years, much more needs to be known. In fact, because the body of knowledge in this area is in its embryonic stage, it is difficult to derive definitive conclusions. Based on this review the following six directions for future research are needed.

1. *Conduct More Methodologically Rigorous Investigations.* Future investigators should strive to incorporate methodological improvements in their studies. First, larger sample sizes must be incorporated and appropriate placebo control conditions used in traditional nomothetic research. Second, because arousal has been shown to be a multifaceted construct, multiple or multivariate arousal measures must be utilized (e.g., assessments of physiological and cognitive arousal components). Third, task-appropriate arousal levels should be determined and manipulation checks should be employed to ensure that subjects actually used the interventions as taught. Similarly, the relationship between these measures and performance should be identified before initiating any arousal regulation strategies. And, fourth, more precise measures of performance are needed.

2. *Design Studies to Determine "How" and "Why" Arousal Regulation Interventions Work.* Investigations have shown that interventions can be designed to influ-

ence arousal and performance. Not every intervention is effective in all situations, however, and investigators can only speculate as to why because most studies have not been designed to test theoretical rationales for explaining intervention effectiveness. For example, do cognitive behavioral interventions such as SIT facilitate performance via lowered cognitive anxiety, somatic anxiety or physiological arousal? Is SIT effective because it enhances an athletes' self-efficacy? Or are interventions like SIT the result of elaborate placebo effects? Similarly, why do athletes perform best when they are within their zone of optimal functioning? Our understanding of arousal regulation will only improve once these issues are addressed.

3. *Conduct Evaluation Research.* Recent reviewers (5,31) have emphasized the need for conducting arousal regulation evaluation research in ecologically valid situations. That is, assessing the effectiveness of those arousal regulation interventions presently used with elite athletes in actual competitive settings. We concur with this call as the levels of stress experienced in competitive athletics are difficult to generate in laboratory situations. Similarly, interventions need to be designed so they can be realistically employed considering real world time constraints. Finally, longitudinal research is needed where athletes utilize arousal regulation strategies over the course of an entire season. This type of research is important because most applied sport consultants (14) feel that psychological skill developments such as arousal regulation efforts usually are the result of long term efforts. Hence, short term research efforts may not detect effects which take considerable time to be implemented.

4. *The Need for Case Study Research.* Mace (31) has recently emphasized the need for more case study arousal regulation research. He convincingly argues that traditional group intervention studies, while useful, do not allow us to determine if interventions work for only some individuals in some situations. Similarly, many investigators (5,13) have emphasized the importance of using intraindividualized anxiety and performance assessments where subjects are compared relative to their own standards on these variables and not to other individuals. Hence, the need to use rigorous case study methodologies, in addition to more traditional nomothetic research strategies, has been identified as an important line of future research.

5. *The Need to Examine Personality and Situational Factors Influencing Arousal Regulation Effectiveness.* Existing research suggests that one arousal regulation strategy will not be effective for all athletes in all situations. This results from the fact that different athletes manifest different arousal components in competitive situations. Moreover, different types of competitive situations may trigger different arousal components and, in turn, need different arousal regulation strategies. Efforts to help athletes cope with stress would be greatly advanced if personality and situational factors related to arousal regulation strategy effectiveness were identified. Finally, a need exists to study the efficacy of arousal regulation strategies across age ranges and sport activities and with athletes of varied sociocultural backgrounds.

6. *Identify the Most Effective Means of Teaching Arousal Regulation.* Jones and Hardy (24) have identified an important practical issue in arousal regulation research: that being the identification of the most effective methods of teaching arousal regulation strategies. For example, how important is the personality of the individual consultant in determining program effectiveness and to what degree do individual consultants "individualize" stress management programs such as VMBR, SIT, and SMT? Similarly, are self-help books, video-, and audiotapes effective in achieving their stated arousal regulation purposes? And, lastly, are group lectures on arousal regulation, which are so frequently used in elite athlete sport science training programs, effective or to be effective does this information need to be individualized with each athlete?

CONCLUSION

Our knowledge of arousal regulation has certainly increased over the last two decades, especially when it is integrated with current developments related to the nature of the arousal construct and new views of the arousal-performance relationship. Current research reveals that arousal regulation strategies can be used to influence athlete arousal and enhance performance, although additional research is needed to better understand and explain "how," "when," and "with whom" these strategies will be most effective.

The authors would like to acknowledge the assistance of Robert Weinberg and Deborah Crews for their comments on earlier versions of this manuscript.

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Unit 5

Theory of Coaching: Emerging Issues

“Courage is the price that life extracts for granting peace.”

--Amelia Earhart

Theory of Coaching: Emerging Issues

Unit 5 Goals:

After watching Current Issues: Law and reading the assigned materials, you will recognize:

- Negligence and breach of duty.
- Standard of care in the coaching community.
- Importance of gaining knowledge of coaching and training techniques.
- Meaning of "acting in a responsible manner".
- Applications such as consistency.
- General areas of player and staff liability.
- Problems associated with injury and pain.
- Responsibility in regard to playing conditions.
- Liability with faulty equipment.
- Liability surrounding those you hire.
- Other areas of risk such as sexual harassment and sexual abuse.
- Additional liability associated with: football, soccer, gymnastics, basketball, tennis, baseball, wrestling, track and field.

Overview

Dr. Peter Goplerud, former Dean of the Law School at Drake University, gives an overview of legal issues related to coaching and sports. This unit is not intended to serve as a course in Sport Law, but it will give a helpful set of suggestions that will guide you in a variety of situations.

Read the following notes written by Dr. Goplerud and then complete the assignments that follow.

LIABILITY ISSUES

By Dr. C. Peter Goplerud III
Dean and Professor of Law
Drake University

Introduction

As a coach, what would be your worst nightmare? Many would say it would be losing a championship game to an underdog. Some would say going into a game ill prepared. A college coach might say they fear a call from the NCAA Enforcement Division. Others might say being fired from a position is the worst that could happen.

1. It is suggested that coaches must think very carefully about how they conduct themselves on the field and in the locker room in order to prevent liability for injury and other adverse consequences for their athletes or their opponents' athletes. Under what circumstances can a coach be liable for injuries to or death of a player, his/hers or an opponent's? What is the appropriate conduct for a coach to avoid issues relating to sexual harassment or gender discrimination?

2. These materials and the accompanying video discuss and analyze different scenarios that present potential liability issues. Appropriate standards of conduct and legal duties and responsibilities will be discussed. Actual case law and state and federal statutes are noted where relevant. No attempt is made to provide answers for every situation, nor is this to be utilized as absolute legal advice for a particular factual issue confronted by a coach or athletic administrator. The user is urged and advised to seek their own counsel and legal advice for particular problems or issues which may develop. The video and these materials provide general guidelines for coaches and administrators to use in evaluating situations and potential legal issues involving coaching techniques, equipment, facilities, fitness questions and other aspects of coaching at any level of competition.

Not So Hypothetical Situations

1. It is August on a college campus and two-a-day football practices have begun. The temperatures and the humidity are both in the 90's. The head coach has decreed that players will be allowed only one water break during each two hour practice session. During the fourth day of practice, a player collapses in the second hour of the afternoon session. He had asked the trainers for water or Gatorade on several occasions. They denied him the liquid, citing the head coach's directive. Are there any liability issues for the coach, athletic director or university?

2. A high school wrestler collapses and dies two days prior to the first meet of the season. It is discovered that he was wearing a rubber suit under his practice gear and had been taking diuretics, both in an attempt to lose weight. He had apparently been under some pressure from the coach to make a lower weight than he had competed at in the previous year. He may have been taking a creative type drug as well. What liability issues may arise for the coach? What questions must be asked regarding the conduct of the coach in this situation?

3. An 11 year old boy is treated for severe weight loss and dehydration in relation to efforts to make the required weight for a peewee football team. It is discovered that he was taking diuretics, possibly at the suggestion of the coach of the team. What liabilities are there for the coach and for the local organization sponsoring the junior football program?

4. A high school athlete is injured in a lacrosse game. She is to be airlifted from the playing field due to a serious spine injury. Ten days later she is cleared by a physician to play. In the first game back, she breaks a bone in her hand. The next day she is back on the playing field with a soft cast up to her elbow. The cast is approved by the high school athletic association for use in competition. Should the coach, athletic director or school district have any legal concerns?

Terms and Concepts

General bases for liability in sports situations: intentional actions leading to injury (intentional torts), negligence, recklessness.

1. Intentional actions leading to injury -- intentional torts. This would be action of an intentional nature, such as an athlete placing another in apprehension of an immediate harmful or offensive touching (assault) or the actual touching in a harmful or offensive manner (battery). The typical defense in a situation such as this would be the existence of a privilege. Examples might be consent of the other athlete or self defense. Also critical would be the element of "intent" which is a legal term of art. It is generally used to "denote that the actor desires to cause the consequences of his act, or that he believes that the consequences are a substantially certain result from it. RESTATEMENT (SECOND) OF TORTS, subsection 8A. See also, Yasser, McCurdy & Goplerud, Sports Law: Cases and Materials (3d Ed. 1997), p. 675.

2. Negligence. The basis of negligence is conduct that results in an unreasonable risk of hard to another. The conduct will involve a risk of harm that outweighs the benefits to be derived from engaging in the conduct. Yasser, et al, p. 675. In order to establish a case based upon a theory of negligence, a party must establish: a duty; a standard of care; a breach of the duty; cause in fact; proximate cause; and damages.

3. Generally the DUTY will arise because of a particular relationship the parties have, and it will be to exercise reasonable care with regard to an individual or a particular group of individuals. Diamond, Levine, and Madden, Understanding Torts (1996), pp. 45-46. The details of the standard of care will vary from situation to situation. Most commonly, the standard will be to behave like a reasonable person, or within sports and coaching, to conduct one's self like a reasonable coach. According to one commentator, "The reasonable person possesses those attributes that a jury decides represent the community norms, and the expected qualities of the reasonable person are not necessarily what is the average or even what most does in the community." Diamond, Levine, and Madden, p. 49.

4. Recklessness. This is conduct that creates a higher degree of risk than that created by simple negligence. Thus, "recklessness involves a choice or adoption of a course of action either with knowledge of the danger or with knowledge of facts which would disclose this danger to a reasonable man. It consists of intentionally doing an act with knowledge not only that it contains a risk of harm to others as does negligence, but that it actually involves a risk substantially greater in magnitude that is necessary in the case of negligence." Hackbart v. Cincinnati Bengals, Inc., 601 F2d 516 (10th Cir. 1979).

Areas of Concern

1. Negligent "teaching/coaching" and training techniques -- must teach proper training techniques -- football coaches must be current on blocking, tackling and training techniques. Wrestling coaches must be current on NCAA rules for training, as well as new techniques for the elements of the competition itself. A coach must not only be current on the proper techniques and training methods, but should also be aware of techniques and methods which are likely to pose risks to his/her players and those of the opposing teams. Examples would include sliding into second base with high spikes; illegal chop blocks and crack-back blocks; brush back pitches; and high sticks.

2. A coach should also be aware of the latest finding of the medical profession regarding such issues as dietary supplements; weight loss and eating disorder issues related to certain sports; performance enhancing drugs, and dehydration from training. A coach must be aware of the standards in the coaching profession and for the particular sport that he coaches. He/she should also be knowledgeable regarding NCAA rules, high school athletic association rules, or the rules for the particular sport association regarding training and other issues related to the health and welfare of the athletes under his/her tutelage.

3. A coach must be responsive to changing conditions -- he must realize when an injury occurs. He has a duty generally to respond to the needs of the player when an injury occurs. But he must be very careful not to go beyond

the type of response which is reasonably related to his skills -- in other words, should not attempt to make medical diagnosis and tell a player to "walk it off". And, the coach should not become a trainer on the spot and begin to manipulate a knee or wrist to determine if it is broken or whatever.

4. A coach should be very cautious about suggesting that a player "play with pain". Searles v. Trustees of St. Joseph's College, 695 A. 2d 1206 (Maine 1997); Kropf v. Vermillion Bd of Education, 1986 Ohio App. LEXIS 7795 (Ohio App. 1986). A coach is advised to be aware of known health conditions that impact particular athletes on his/her team, e.g. a Hank Gathers or Reggie Lewis situation. The coach is advised to be very cautious, and even seek counsel, when a player insists upon playing under these conditions. It should be noted there will always be intense pressure from the player or his/her parents. Don't get caught up in this pressure.

5. There are certain risks inherent in each of the various sports -- in all likelihood a coach will not be held responsible for a player suffering such an inherent injury -- but if the team or coach directs, either explicitly or implicitly, an athlete to continue doing whatever it was that caused the initial injury, it will then be exposed to liability. Issues may arise in obvious mismatches of ability or size, where there are different levels of approved competition. DeGala v. Xavier High School, 610 N.Y.S.2d 270 (App. Div. N.Y. 1994); Benitez v. New York City Bd. of Education, 530 N.Y.S.2d 825 (App. Div. N.Y. 1988).

6. A coach or athletic administrator must also be aware of your players' violent propensities, e.g. Kermit Washington the player who attacked Rudy Tomjanovich or Latrell Sprewell. Indeed at the professional level there could be liability for negligent hiring of a player, if that player had known tendencies to lose control and become violent -- e.g. Sprewell.

<u>Negligence regarding equipment or facilities</u>

1. The coach must be aware of dangerous training situations -- poor condition of playing field, such as holes or poor drainage, may cause hazards to the athletes. The reasonable coach would have a duty to warn the players of the conditions, and in most instances would have a duty to move the team from the practice or playing facility. Dangerous equipment may also give rise to a duty for the coach to supervise his players or at least give some considered warning to them. (Vaash v. Racine Unified School Dist., 324 N.W.2nd 831 (Wis. App. 1982); Gasper v. Freidel, 450 N.W.2d 226 (S. Dak. 1989).

2. Similarly, a coach would have a duty to remove his team from the playing field if the weather conditions become so dangerous as to create an unreasonable risk of harm to the players. It is well settled that a school has a duty to supervise the activities of the students in its charge. The duty is no less because they are engaged in a rigorous physical activity such as

football. Benitez v. New York City Board of Education, 530 N.Y.S2d 825 (App. Div. 1988).

3. It is also likely that a court would find a coach has a duty to be aware of an take appropriate action in response to dangerous activities occurring on areas near or adjacent to the field. This would again be the case because of unreasonable risk of harm to the athletes from these activities. Examples would include construction activity, discus or javelin competition or practice nearby, or gang activity. Lanning v. Anderson, 921 P2d 813 (Kan. App. 1996) (no liability because of governmental immunity, but issues discussed in depth).

Negligent hiring or supervising

It is conceivable that a coach could be subjected to liability for the hiring of an assistant coach or trainer who has a history of bad behavior, either in actual coaching or more common today, with regard to sexual harassment or other similar conduct.

Specific Sports Concerns

1. Football -- faulty equipment, teaching of improper tackling or blocking techniques, questionable playing fields, questionable or unsupervised weight room activities or training programs; encouragement either explicit or implicit of use of performance enhancing drugs.

2. Wrestling -- weight loss pressures, playing with injuries, coaches working out with athletes -- NCAA has now changed in response to the deaths of three athletes in late 1997 -- no saunas, no rubber suits or diuretics.

3. Track -- unsupervised workouts where shot put, javelin or discus is being used, extreme heat or other dangerous weather conditions.

4. Soccer -- unsafe playing fields, improper use of headers.

5. Gymnastics -- eating disorders and other pressures put on young athletes to capture a "certain look".

What to do to be Safe.

One can never be too careful -- new state certification programs are being developed in various states. Coaches should attend all relevant seminars possible in order to maintain currency with regard to techniques, concerns, and programs available that promote safety and sensible approaches to the particular sports. Read new materials as they come out and be aware that video tapes are available in many instances. Use good common sense! In situations where there are questions, be sure to seek the advice of the school's attorney or where personal issues are present, seek your own counsel.

Assignment 15: (15 points)

(Use the MS Word document "Course Study Guide Answer Pages" provided for your convenience in word processing.)

Consider your own school and community and describe at least three situations that you believe could have put your school district or club at risk. Please feel free to change student, coach or school names for purposes of confidentiality, and note that your responses are only the property of your Drake University instructor.

Assignment 16: (15 points)

(Use the MS Word document "Course Study Guide Answer Pages" provided for your convenience in word processing.)

Consider what you have just viewed and read, and describe a plan of action or change in approach that could reduce the risk of a lawsuit in the three situations you described above.

Assignment 17: (15 points)

(Use the MS Word document "Course Study Guide Answer Pages" provided for your convenience in word processing.)

Throughout the video, Dean Gopelrud talks about "the bottom line" for reducing your liability when coaching. Discuss his main point that should guide your daily dealings with athletes?

Unit 5 – Assignment Sheets

Assignment 15: (15 points)

Consider your own school and community and describe at least three situations that you believe could have put your school district or club at risk.

Situation 1:

Situation 2:

Situation 3:

Assignment 16: (15 points)

Consider what you have just viewed and read, and describe a plan of action or change in approach that could reduce the risk of a lawsuit in the three situations you described above.

Situation 1:

Situation 2:

Situation 3:

Assignment 17: (15 points)

Throughout the video, Dean Goplerud talks about "the bottom line" for reducing your liability when coaching others. Discuss his main point that should guide your daily dealings with athletes?

COURSE EVALUATION

Please click on this link, http://drake.qualtrics.com/SE/?SID=SV_9NU7ir8noyMxjZb to complete the online Course Evaluation for:

EDMA 171 Theory of Coaching

We value your opinion and will use your comments in future offerings. Thank you!

Note: ***If clicking on this link does not open your browser and take you to the survey, copy and paste the URL into the address bar of your browser. If you are using Internet Explorer and the link does not work, please try a different browser.***

Completion Procedure

The cover page along with the word-processed responses on the answer pages to the assignments are the only portions of your coursework that you need to submit to Drake University for evaluation.

Coursework Submission:

Please see the first download called "Important Information" from your "Welcome" email for the procedure and portal submission link.

The DVD's must be returned to:

Drake Distance Learning Fulfillment
2730 Graham Street
Ames, IA 50010.