Health
Physical Education
and Recreation

Exercise and Sport Sciences

Microform Publications Bulletin
MICROFORM PUBLICATIONS

HEALTH, PHYSICAL EDUCATION, RECREATION, AND EXERCISE AND SPORT SCIENCES

GENERAL INFORMATION
Microform Publications of Human Movement Studies is a component of the International Institute for Sport and Human Performance at the University of Oregon. Since its inception in 1949, Microform Publications has been providing a service to the academic community worldwide. Its focus is on the dissemination of graduate research of national and international significance. In addition, Microform Publications provides access to scholarly books, journals, and meeting proceedings now out of print.

The collection of Microform Publications, which contains approximately 9,500 titles, covers more than fifty years of graduate research in full text in the subject areas of health, physical education, recreation, exercise and sport sciences, sport history, and sport-related issues in the humanities and social sciences, and dance. The theses and dissertations are compiled primarily from universities in the United States and Canada. However, the contributions from other English-speaking countries have been increasing during the recent years.

HOW TO FIND US
The collection of full-text documents on fiche is indexed in bulletins such as this one. The collection is accessible with help of a search engine on Microform Publications’ homepage on the Internet (http://darkwing.uoregon.edu/~micropub/). In addition, twice a year, the index is forwarded to Sport Information Resource Centre (SIRC) of Canada, the world’s most authoritative sports information service. The new titles are incorporated in SPORTDiscus, a CD-ROM database, and in SPORTDiscus Detective, a SIRC Internet access service. In addition to the collection of Microform Publications, both include a broad range of exercise physiology, biomechanics, and sport medicine topics covering research, clinical, and lay publications.

BULLETIN 14, 1
This publication is the first issue of Bulletin 14. The bulletin represents microfiche published in April 2001. In the past, bulletins were published every 5 years, except for Bulletin 7, which covers two and a half years. Beginning with Bulletin 8, there are two issues (nos 1 and 2) per annual bulletin. Each issue includes a section of theses and dissertation titles and abstracts, as well as a section of keywords. Bulletin 14, 2 will be published in October 2001.

PRICE AND CATALOGING
The price of each title in this bulletin is indicated in parentheses at the end of the title listing. The price includes the library catalog card for the title. All titles have proper catalog headings, including both Dewey Decimal and Library of Congress classification numbers, as well as subject headings chosen from the Library of Congress Subject Headings.

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**Key to the price chart on the right**
- HE Health Education
- PE Physical Education
- PH Physiology and Exercise Epidemiology
- PSY Psychology
- RC Recreation and Leisure
# Volume Discounted Price of Microform Titles to Date

**October 1949 - April 2001**

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Glennville State College, Glennville, WV
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San Jose State University, San Jose, CA
Slippery Rock University, Slippery Rock, PA
Sonoma State University, Rohnert Park, CA
South Dakota State University, Brookings, SD
Southern Illinois University, Carbondale, IL
Southwest Missouri State University, Springfield, MO
Southwest Texas State University, San Marcos, TX
Sport Information Resource Centre, Ottawa, ON, CANADA
Springfield College, Springfield, MA
State University of New York, Brockport, NY
State University of New York, Cortland, NY
Texas A&M University, College Station, TX
Texas A&M University, Commerce, TX
Texas Tech University, Lubbock, TX
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Wayne State University, Detroit, MI
West Chester University, West Chester, PA
Western Illinois University, Macomb, IL
Western Washington University, Bellingham, WA
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PART I: TITLES AND ABSTRACTS

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PHYSICAL EDUCATION AND ATHLETICS

ADMINISTRATION

Barajas, Gonzalo. A descriptive study of collegiate arena managers, 2001. M.A., Ball State University (Ronald Davis). (82pp 1f $5.00) PE 4201

The purpose of this study was to describe the professional profile of collegiate arena managers. Subjects consisted of collegiate arena managers who were members of the International Association of Assembly Managers (IAAM). The data were analyzed using descriptive analysis of frequency of response and percentages. A self-constructed survey was used to develop a professional profile of collegiate arena managers. The survey was administered using the inQsit program developed at Ball State University. An on-line survey was posted on the inQsit website. Data were collected concerning four research questions. Results indicated females (8%) and minorities (6%) are under-represented. The data further indicated that 58% of respondents hold a master’s degree and that 53% recommend future professionals obtain a business administration degree. The results also indicated that prior experience in arena management is necessary to become an arena manager. Duties of an arena manger were varied and numerous, and required long working hours. In addition to addressing the research questions, the data showed that computer literacy and technology standards are areas in which arena managers need further investigation.

Beumer, Rebecca L. Determining the presence of lifeguards during competitive swimming events at Mid-American Conference universities, 2001. M.A., Ball State University (Paul A. Fawcett). (62pp 1f $5.00) PE 4202

The purpose of this study was to determine the presence of lifeguards at men’s and women’s varsity competitive swimming events, including practices and competitions, at Mid-American Conference universities. Subjects were aquatic directors and both men’s and women’s competitive swimming coaches from nine out of the 13 Division I member institutions within the Mid-American Conference. Eighteen of 22 self-constructed surveys mailed were returned, for a return rate of 81.8%. At least one survey from each of the nine universities being surveyed was returned, for 100% representation of all the Mid-American Conference universities that currently have competitive swimming programs. The results of the study were analyzed using descriptive statistics and indicated what type and level of safety is currently being provided by the universities within the Mid-American Conference. The results also proved that a current standard of care regarding competitive swimming safety has been set by six out of the nine universities surveyed.

Covell, Daniel D. “To keep a proper perspective on the role of athletics”: an examination of the perceived role of intercollegiate athletics in the New England Small College Athletic Conference, 1999. Ph.D., University of Massachusetts, Amherst (Carol A. Barr). (251pp 3f $15.00) PE 4182

This research seeks to understand the actual perception of the proper role of athletics on the part of student-athletes, faculty, and presidents within the New England Small College Athletic Conference (NESCAC), an intercollegiate athletic league comprised of 11 highly selective National Collegiate Athletic Association Division III institutions. Data for this research was collected using a survey instrument to sample attitudes and perceptions from all three constituent groups so as to ascertain more fully conference-wide trends. The greatest perceptual differences overall in responses to these statements were registered between faculty and student-athletes. Faculty were considerably more skeptical of the values to be gained from the time and effort expended on intercollegiate athletics, while student-athletes consider these same expenditures to be not only valuable, but on an equal plane with those made in the academic realm. Presidents and student-athletes demonstrated perceptual similarities on those statements that examined the perceptions of the relative importance of intercollegiate athletics in relation to life on NESCAC campuses. Follow-up interviews with presidents were held to collect qualitative data to formulate a more complete picture of conference-wide attitudes and perceptions. Presidents were chosen to be interviewed because they have the most power and influence over the formation of intercollegiate athletic policy as outlined in the conference bylaws. Findings from these interviews indicate that perceptual “sub-groups” exist amongst the presidents. These perceptual sub-groups can be defined as...
“promoters,” “acceptors,” and “doubters.” Presidents in each sub-group maintain that NESCAC reflects their own personal notions of the classic and ideal role of intercollegiate athletics, believe that the above cited classic and ideal perceptions are under fire and are increasingly difficult to maintain, and declare that NESCAC has not been immune to the growing interest and emphasis in sport in American society. In addition, many presidents were surprised at the level of significance attributed to and required for the management of intercollegiate athletic policy and were therefore unprepared to deal with the increased managerial expectations and attention required to deal with athletic policy issues.

Eaton, Scott W. Analyzing computer applications in National Collegiate Athletic Association’s men’s basketball programs, 1999. Ed.D., Boston University (John Cheffers). (244pp 3f $15.00) PE 4192

The purpose of this investigation was to analyze and evaluate the use of computers in the administration of men’s basketball programs of the National Collegiate Athletic Association and to determine the effectiveness of the specific computer applications and software used in those programs. A comparison of the institutions’ divisional status and their computer availability and usage was analyzed. The effectiveness of the use of the computer for the organization of the basketball program was analyzed. The effectiveness of the use of the computer to the success of the basketball program was analyzed in terms of team record. Software applications other than the basic functions of word processing, database managing, and spreadsheet operating were also examined and analyzed. The effectiveness of the individual categories of computer use was analyzed. The sample size for this study was 740, the number of Division I, II, and III institutions that are members of the NCAA. Of the 740 institutions, 292 (39.5%) schools returned the questionnaire. The study indicates that 89.4% of the institutions use computers in the administration of their programs. 97.9% of these institutions indicated that the use of computers is valuable, very valuable, or extremely valuable. 88.0% of these institutions indicated that hours spent using the computer in the basketball office were hours spent efficiently and effectively. The study indicated that Division I institutions had more resources, more personnel, and more computers available to them than Division II or III. There was no relationship between the effectiveness of the computer and the success of the team in terms of team winning percentage. The study found that 86.2% of the computer application categories, 89.2% of the custom computer applications, and 92.7% of the basketball web sites were very valuable and effective in the administration of the basketball program. The schools that responded to this questionnaire have demonstrated that using computers in the administration of the men’s basketball program is a valuable and an effective means of maintaining an effective program.

Hostetter, Karen. The development of a high school sports medicine/athletic training course, 1997. M.S., California State University, Fullerton (Patricia Laguna). (189pp 2f $10.00) PE 4204

Opportunities for high school students to study sports medicine/athletic training (SMAT) under the direction of a Certified Athletic Trainer (ATC) are limited. There are a small number of high schools that offer SMAT courses, but these courses are not always taught by qualified personnel (i.e., teacher-credentialed ATCs). The purpose of this study was three-fold: 1) to determine the level of need or desire for an introductory high school SMAT program; 2) to determine the content of an introductory high school SMAT program; and 3) to develop an introductory high school SMAT program. Results indicated that both high school and collegiate ATCs felt there was a need for an introductory high school SMAT program, and that several programs exist throughout the United States. A course content survey indicated 25 of the 185 Competencies in Athletic Training should be included in an introductory high school SMAT course.

Jackovic, Terence J. A comparison of student development outcomes among male revenue athletes, non-revenue athletes, and club sport athletes at an NCAA Division I university: a case study, 1999. Ed.D., University of Pittsburgh (Glenn M. Nelson). (231pp 3f $15.00) PE 4183

This study investigated nine outcomes associated with the overall college experience for male athletes at an NCAA Division I university. A survey and focus groups were used to measure the outcomes. The nine outcomes investigated included overall college satisfaction, overall college success, and Arthur Chickering’s seven student-development outcomes. For each outcome and variable/factor that measured each outcome, comparisons were made between male revenue, non-revenue, club sport, and non-athletes. Additionally, the impact of participating in college athletics on student development, college success, and college satisfaction of the athletes was investigated. Finally, various factors, including factors related to college athletic participation, were investigated to determine their influence and importance on student-athlete college satisfaction, college success, and student development. Using the $P=.01$ to $P=.10$ significance level, the study found significant differences between the four groups studied for two of the nine student development outcomes. Also, non-athletes were found to be lower overall than the athletes for six of the nine outcomes measured. Significant differences were also found between the four groups for six factors/variables that measured each outcome. For the impact of college athletic participation on student development and overall college satisfaction, and success of the three different groups of athletes, significant differences were found for four of the nine outcomes. For the general and college athletic-related factors important in influencing the
Throughout the years, drugs have been a problem in college athletics. As a result, some of the NCAA Division I-A institutions have implemented mandatory drug education programs for their athletes that exceed minimum requirements set by the NCAA, while others have implemented programs with only minimal requirements. The focus of this study is to examine Division I-A institutions to see if they have mandated a drug education program for all athletes, and to determine the extent of the program. All NCAA Division One institutions that participate in Division I-A football were studied. Survey questions contained in this study were derived from extensive research in journals, dissertations, and other documents. A survey was sent to the athletic director and head trainer of all NCAA Division I-A athletic departments. The survey was completed on-line, or hard copies of the survey were available upon request. A customized database and web application were constructed to collect and analyze data through a web-enabled survey. Athletic directors had the opportunity to forward the survey to someone more qualified to respond to the survey questions. Analysis of the survey data revealed the frequency of NCAA Division I-A institutions that have a mandatory drug education program for all athletes and what it entails. The researcher guaranteed confidentiality and the survey took participants around five minutes to complete. Sixty-four percent of the responding institutions had a mandatory drug education program that exceeded minimal guidelines set forth by the NCAA. When asked if they had an effective drug education program, 64% of the responding schools answered positively. Only 20% of the responding schools had a mandatory drug education program designed as a class for academic credit. Of those schools, the class covered a vast array of life skills, drug information, group interactions, opportunities for counseling and had different purposes ranging from drug awareness to drug rehabilitation. Those most involved with designing the drug education program were trainers, counselors, and athletic directors. The main reasons given for not having a mandatory drug education program were: the use of drug testing in lieu of the program, or time and staff constraints and conflicts. Ninety-five percent of those responding had some form of drug treatment available for the student-athlete. When a student-athlete is accused of substance use/abuse, 81% of the schools do not retract the scholarship. The main concerns of drug education programs are alcohol, marijuana, cocaine and steroids, with little time allowed for supplements and/or designer drugs. An in-depth mandatory drug education program generally is designed for academic credit and the purposes are drug information, awareness, precaution, intervention, prevention, treatment, and rehabilitation.

The purpose of the study was to identify the competencies of sport event managers in the United States. Two groups, academicians and practitioners, were surveyed as to their perceptions regarding the important competencies of sport event managers. A comparison of the perceived important competencies was conducted to examine whether there was a difference in the perceptions between the two groups. The academicians were selected from the 200 sport management programs that offered event management courses in the United States, while the 34 United States Olympics National Governing Bodies (USNGBs) were chosen to represent the practitioners for the study. The research instrument was modified from Toh’s (1997) questionnaire, and the final versions of the Competencies of Sport Event Managers (COSEM) for both the practitioners and the teaching professionals were used to collect the data. Of the 79 questionnaires sent to the academicians, 57 were returned, making the response rate 72%. Of the 34 questionnaires sent to the practitioners, 25 questionnaires were returned, making the response rate 74%. Descriptive statistics, factor analysis, one way MANOVA, and the Pearson Product Moment Correlation Coefficient were utilized for data analyses. The top five competencies, including tied items, favored by the academicians were: (1) Maintains effective communications with staff, (2) Uses good verbal communication skills, (3) Uses good written communication skills, (4.5) Communicates performance expectations with staff in a written job description, (4.5) Establishes procedures reflecting fair treatment of staff and participants. The top five competencies favored by the practitioners were: (1) Maintains effective communications with staff, (2) Designs, plans, and controls event logistics (e.g., transportation, hospitality, food and beverages, venues, ticketing, etc.), (3) Uses good verbal communication skills, (4) Uses good written communication skills, (5) Utilizes effective time management techniques. Overall, there were no differences between the academicians and the practitioners in perceived important competencies needed to perform a job in the area of sport event management. Generally speaking, the academicians in the area of sport event management understand what the needed
competencies are in order to perform a sport event management job. It is recommended that similar studies look at other areas of sport management, such as sport marketing, public relations, facility management, human resource management, etc., to determine if good communication between the academicians and the practitioners also exists in other areas.

Tungjaroenchai, Amnart. A comparative study of selected sport management programs at the master's degree level, 2000. Ph.D., Mississippi State University (Jack G. Blendinger). (250pp 3f $15.00) PE 4188

The phenomenal growth of physical fitness through recreational activities has created a demand for sport management professionals. Current and future job demands require that sport managers possess a depth of knowledge and a broad range of specific competencies in both business and sport to deal successfully with ever-changing challenges and problems. Because of the opportunities in recreational sports, there is a need for a model sport management curriculum at the master’s degree level to serve as a guide in preparing professionals to successfully function in this field. This study examined, compared, and contrasted master’s degree programs in sport management at eleven universities in the southern United States for the purpose of developing a curriculum that could be recommended as a “best program” model at the master’s level. Sport management programs at eleven universities were examined using document analysis. Data collected were analyzed and classified in relation to a framework based on curricula standards developed by the National Association for Sport and Physical Education (NASPE) and the North American Society for Sport Management (NASSM) Sport Management Review Council. The findings of the study indicated that the Master of Science Degree (M.S.) in Sport Management was the most common degree offered. Thirty-six semester hours were the most common number of credits required for the degree. Three basic components comprising sport management curriculums were identified: (a) required courses, (b) elective courses, and (c) culminating experiences. Six to eight required courses generally comprised the core of sport management curriculums. Culminating experiences usually consisted of an internship or practicum. Most programs provided students the option of writing a thesis. Students who chose not to write a thesis were usually required to pass a comprehensive written examination. A “best program” model for preparing sport management professionals was developed based on the study’s findings. The model covers all nine NASPE-NASSM content areas and meets suggested standards.

In light of student-involvement and student-retention theories, and other research findings relating to the academic lives of college students, this study examines athletic department characteristics of Division 1 athletic departments and their relationships to student-athlete academic performance and persistence. Thirty-two Division 1 institutions returned football and men’s basketball team data, which led to the creation of an institutional typology used to group institutions according to academic performance and persistence scores. Of the 32 institutions in the typology, 14 were chosen as sites for survey research. Eleven of the 14 sites returned a total of 178 responses from student athletes, administrators, coaches, and faculty athletic representatives. Surveys provided ordinal level data in the form of responses to discrete categories in 66 variables. The Chi Square and descriptive analyses of this data found relationships between a significant number of independent variables and student-athlete academic performance and persistence. Statistically significant relationships were found to exist between TYPE 1 (high academic performance and high persistence) institutions and variables in the following categories: 1. Athletic department policies, processes, and practices. 2. Athletic department relationships with academe. 3. Athletic student-service characteristics, activities, and practice. 4. Student-athlete preparation, development, involvement, and relationships. 5. Coaches’ actions, attitudes, and responsibilities. The inquiry found 17 independent variables strongly related to student-athlete academic performance and persistence.

COACHING AND TRAINING

Rukavina, Paul B. A coaches’ intervention to enhance practice, motor time, and skill in youth basketball players, 1998. M.S., Arizona State University (Katherine Thomas Thomas). (342pp 4f $20.00) PE 4198

The purpose of this study was to determine if a coaching intervention, focusing on planning and utilization of specific learning objectives and effective management skills, would increase skill development in athletes. Coaches (n=5) and players (n=50) from a YMCA basketball league served as subjects. As a result of the treatment, players received more practice trials, while practice time increased slightly. Qualitatively, coaches improved their management behaviors in all areas, but still needed improvement designing activities, to take greater advantage by using all the basketballs, baskets, and assistant coaches. A coach’s goal for player practice should be close to a “private lesson” and “how an expert practices” as possible. As a result of playing/practicing all season, all players improved from pre- to post-intervention in knowledge and qualitative measures of skill. Thus, the adage of process before product applies. Youth coaches must examine qualitative improvements based on execution, not outcomes. Players on
average reported about 25% of the coaches’ objectives, but
did not increase in the percent congruency of coaches’
objectives in the interviews after the intervention. Players
identified as better players (n=18) and poorer players
(n=14) (by post-test basketball shooting skill) were used in
another analysis to examine skill level. Better players had
higher performance on qualitative and quantitative
measures of shooting and dribbling, but not knowledge.
Knowledge may not differentiate between levels of
expertise due to factors that limit the tactical nature of the
game at this age. Better players practiced more days per
week, more with siblings and other people. Parental
involvement was not statistically different, likely due to a
low number of subjects. In conclusion, a training program
focusing on planning and utilization of specific learning
objectives and management helped coaches improve the
quality of the learning environment. Better players had
greater skill (qualitative and quantitative) than poorer
players; however, all players improved qualitatively over
the season.

HISTORY AND PHILOSOPHY

Cable, Dale. Jackie Robinson and the integration of organized
baseball, 1979. B.A., Allegheny College (Ralph E. Luker,
Paul G. Knights, Richard W. Turk). (141pp 2f $10.00) PE
4174

Jackie Robinson exemplifies a life resplendent with the
brilliance of experience and importance. To devote study to
such an individual assumes the importance of the person.
The fascination of Robinson’s inner soul—his personality
and character—is revealed. The perspective of two
histories is exposed in relating the significance of
Robinson’s life—an external history and an internal
history. The external history depicts the times and events
leading to and during his life. The internal history draws
the development of his character and personality by what
influenced his values and beliefs. Therefore, Robinson’s
internal history is his reaction to the external history. Jackie
Robinson cannot be reviewed without an account of his
place in history.

Levy, Scott J. Lily Dippers, Sockamayocks, and the Blue Goose:
University (Saint Louis, MO) (Kenneth Winn). (165pp 2f
$10.00) PE 4196

Baseball’s rise to America’s premier sport occurred during
a tense period of racial relations in the years following the
Civil War. While white America took to baseball with
increasing fervor, the recently emancipated blacks only
began playing the game several decades after their white
counterparts, and then primarily on weedy fields with
makeshift equipment. Black participation, thus, came after
whites had institutionalized playing rules and established
governing bodies. Through both informal and formal
practice, blacks were denied the chance to compete
alongside white players. As in other areas of American life,
blacks struggled to establish their place in baseball. While
baseball occupied a prominent position in urban white
America at the turn of the century, blacks also played the
game. Blacks, mostly situated in the rural South, played the
game to break the monotony of life. During summer, in
celebrations like Founders Day and Emancipation Procla-
mation anniversaries, blacks included baseball as part of
the festivities. After the migration North following World
War I, baseball became a building block for developing
communities. The ball park represented one of the few
places blacks could congregate in large numbers without
fear of whites. Though a few blacks managed to play with
whites, most blacks played the game exclusively with
members of their own race. The black game resembled the
white one. It adhered to the same rules, used identical
equipment, and had a similar code of ethics. However,
baseball engendered two separate spheres of play. Though
alike in formal terms, black and white baseball differed on
several counts, the most prominent being finances. The
black version never achieved the stable and extensive
infrastructure as found in white professional ball. Hardly
any of the black game’s participants, whether players,
managers, or owners, ever earned anything approaching
Major League pay. Few blacks had enough capital to
finance such undertakings. Black baseball also suffered
from its impoverished supporters. Furthermore, almost no
black teams owned ball parks, and powerful white booking
agents earned sizable fees by controlling the white-owned
parks. According to Negro league Hall of Famer Monte
Irvin, “you got to pay the booking agent off the top, ten,
fifteen, twenty percent, for what? It was just terrible. They
wanted so much money for it. And what did they do? They
didn’t throw a ball, didn’t hit a ball, just had to pay them
for the privilege to play in the ball park. It was ridiculous.”
Black baseball’s weak financial arrangement resulted in
slipshod record-keeping. Poorly kept records hampered
research and left a gargantuan task to contemporary
researchers wishing to set the record straight. Black
baseball’s unique playing circumstances generated its own
lore. Thus, while whites and blacks both played the same
game, their differences overshadowed their similarities.

Rosebrook, Jeb S. Diamonds in the desert: professional baseball
in Arizona and the desert southwest, 1915 to 1958, 1999. Ph.D.,
Arizona State University (Peter Iverson and Albert L.
Hurtado). (277pp 3f $15.00) PE 4186

Professional baseball has been a part of Arizona’s history
since the first major league teams began playing exhibition
games in the Grand Canyon state at the turn of the
nineteenth century. Before the arrival of the professionals
in Arizona, amateur and semi-pro baseball had become an
integral part of Arizona’s communities since the first
recorded games were played in the territory in the early
1870s. After the first big league exhibitions in the 1900s, Arizona boosters succeeded in bringing three types of professional baseball to Arizona for the next six decades: regional minor leagues, major league spring exhibitions, and major league spring training. The history of professional baseball in the United States is a national, regional, and local story of major and minor leagues, teams and players, owners and communities, boosters and fans. Professional baseball in Arizona from 1915 to 1958 represents an era in American baseball history when regional minor leagues and the majors collectively shared the mantle, “national pastime.” Until 1958, when the Brooklyn Dodgers and New York Giants moved west, the major leagues were regional circuits in twelve cities east of the Missouri River. The first six decades of professional baseball in Arizona represent an era in which the regional minor leagues were an integral part of professional baseball. The teams and players who took pride in their “diamonds in the desert” are collectively an important, overlooked chapter in the local, regional, and national history of the saga of America’s game, baseball. This dissertation is a case study of the industry of professional baseball in Arizona and the Southwest from 1915 to 1958. While local boosters supported Arizona’s minor league teams, the teams were part of regional leagues that were nationally chartered and supervised. The rise and fall of minor league baseball in the Southwest is a parallel chapter in the history of professional baseball and its promotion as the national pastime since the end of the Civil War. This synthesis constitutes the first attempt at understanding the development, promotion, and decline of professional baseball in urban communities of Arizona and the Southwest during the first half of the twentieth century.

MEASUREMENT AND EVALUATION

Cowey, Catherine. The validity of the Polar SmartEdge OwnCal monitor, 2000. M.A., San Francisco State University (Marialice Kern). (5pp 1f $5.00) PE 4210

The purpose of this study was to test the validity of the Polar Smartedge™ OwnCal (‘99, Tampere, Finland) monitor against indirect calorimetry in exercising female, male, trained, and untrained individuals. Sixteen male and 14 female subjects completed two exercise trials on a bicycle ergometer for three successive five minute steady state intervals at 45%, 55%, and 65% of oxygen consumption (VO₂) max. Calories and HR were recorded every minute from the OwnCal monitor. The criterion measure, VO₂ and respiratory exchange ratio (RER) were recorded and a separate set of 4 specimens was used to validate the regression model endpoints are commonly defined by joint centers. For the major joints, joint centers have been located relative to external bony landmarks. This accepted technique does not apply to the shoulder, due to the amount of soft tissue surrounding the joint. Attempts have been made to relate the shoulder joint center (SJC) to the acromion process of the scapula, but the author proposes that these methods do not hold throughout the shoulder’s full range of motion. The purpose of this study was to develop a set of linear regression equations to predict the 3-D location of the SJC relative to the epicondyles of the humerus. A sample of 42 skeletal specimens was measured for the regression model and a separate set of 4 specimens was used to validate the equations. The equations were then validated, with 11 volunteer subjects, throughout shoulder flexion/extension and abduction/adduction. The motions were recorded with planar video and 3-D real-time motion analysis. The planar video collection was hand digitized and used as a comparison for the prediction technique. This comparison...
required the 3-D position of the predicted SJC to be projected onto the plane of video collection. Vectors were then calculated from the epicondyles to the SJC at 10° intervals for both methods. A repeated measures ANOVA was used for comparison. It was hypothesized that the prediction technique would more accurately describe the location of the SJC throughout the shoulder’s range of motion (ROM). It was found that the prediction method caused the SJC to lie significantly more proximal than the digitized SJC. However, as the shoulder’s relative angle increased, the predicted and digitized upper arm vectors became more similar. It was also noted that the trajectory of the predicted SJC followed a smooth circular path, while the digitized SJC followed a jerky, linear path. This supports the hypothesis and indicates that the prediction technique is less subjective and arbitrary than the planar digitizing technique in describing shoulder joint motion.

Heil, Daniel P. Body mass scaling of endurance cycling performance, 1997. Ph.D., University of Massachusetts, Amherst (Patty S. Freedson). (372pp 4f $20.00) PE 4212

The purpose of this dissertation was to assess the relationship between body mass (\(M_b\)) and endurance cycling performance. Four experiments were designed to describe the relationship between a dependent variable (\(Y\)) and \(M_b\) using multiple log-linear regression analysis procedures. Each analysis was used to conclude that \(Y\) changed proportionally with \(M_b\) raised to the power of \(b\) (i.e., \(Y = M_b^b\)), where \(b\) is the \(M_b\) exponent. Experiment I utilized a pre-existing data set from subjects aged 20-79 years to determine that peak oxygen uptake (\(VO_{2peak}\)) scaled with \(M_b\) to the 0.75 (95% CI: 0.651-0.862) power in a heterogeneous population and 0.65 (0.530-0.775) power in a homogeneous population. These findings were shown to be consistent with predictions from the theory of geometry similarity (TGS). Experiment II evaluated how net \(VO_2\) (\(VO_{2net}\)) scaled with \(M_b\) as well as the combined mass (\(M_c\)) of the cyclist and bicycle and \(M_b\) during uphill treadmill bicycling. It was concluded that \(VO_{2net} = M_c^M_{1.0/c}\) due to gravitational resistance, while \(VO_{2net} = M_b^M_{1.89/b}\) because the cyclists’ bicycles were relatively lighter for heavier cyclists. Experiment III determined the scaling relationship between projected frontal area (AP) and body mass. Both body \(A_p\) (\(A_p\) for cyclist’s body) and total \(A_p\) (\(A_p\) for cyclist’s body and bicycle) scaled with \(M_b\) to powers significantly lower (0.408[95%CI: 0.299-0.517] and 0.463[0.262-0.663], respectively) than the 0.67 power predicted for area measurements by the TGS. This indicates that larger cyclists should experience less aerodynamic drag relative to their body mass than smaller cyclists at a constant ground speed. Lastly, results from Experiments I-III were combined with data from the literature to derive and validate a generalized allometric model (GAM) of endurance cycling performance in Experiment IV. The GAM equated the metabolic power supply and external power demands of time trial cycling performance in a mathematical model expressed exclusively in terms of \(M_b\) differences. The model results appeared consistent with anecdotal observations and valid when compared to actual time-trial data. The results of this dissertation support the use of \(M_b\) scaling as a tool for better understanding of body mass as a determinant of human performance.

PEDAGOGY

Clawson, Cindy A. The effects of toys, prompts, and flotation devices on the learning of water orientation skills for preschoolers with or without developmental delays, 1999. M.S.Ed., State University of New York, Brockport (Cathy Houston-Wilson). (82pp 1f $5.00) PE 4168

The work of children is play; and in that work, toys can be used to educate, provide enjoyment, and help build the foundation of social skills. One of the guidelines from the National Association for the Education of Young Children (NAEYC) regarding developmentally appropriate practice is that children learn through interacting with their environment. The purpose of this study was to determine the effects of toys, prompts, and flotation devices on the learning of water orientation skills for pre-schoolers with or without developmental delays. The 42 participants (ages 3-5 years, male/female) were volunteers from a community pre-school aquatics program. They were pre- and post-tested with the Water Orientation Skills Checklist—Advanced (WOC-A) developed by Killan, Arena-Ronde, and Bruno (1987). The children were recruited to either the control group (19 subjects) or intervention group (23 subjects). The children received swimming lessons for 4 weeks, 30 minutes twice a week. The control group lessons consisted of demonstration and practice and the intervention group lessons consisted of environmental arrangements enhanced with toys, prompts, and flotation devices. The data were analyzed with the Mann-Whitney U test for nonparametric statistics. The findings demonstrated that the Mann-Whitney z score of .33 at the .05 level, the toys, prompts, and flotation devices did not significantly enhance the pre-schoolers’ learning of water orientation skills. An important finding, however, is that while the toys, prompts, and flotation devices did not enhance water skills, they also did not hinder the learning of swimming skills, as both groups’ mean score of improvement was 11 points.

Fluharty, Shawn K. A model for improving summative ratings of student teachers utilizing generalizability theory, 2000. Ph.D., Brigham Young University (Joyce M. Harrison). (134pp 2f $10.00) PE 4193

The lack of research, along with the subjectivity of raters, provides precedence for the need to determine the dependability of the assessment procedure currently used to evaluate student teachers. This research study attempted to
produce a more dependable method of assessing student
teachers through the application of generalizability theory
to the observational ratings of five female physical education
student teachers, teaching two different lessons, by five cooperating and three supervising teachers. The lessons were videotaped and each lesson was rated using a 27-item observational instrument, in random order on two separate rating occasions, with all raters rating the same lesson at the same time. Separate rating occasions were held for cooperating and supervising teachers. The study took into consideration all the factors that influence the dependability of an observational assessment. Two separate G study analyses, one for the cooperating teachers and one for the supervising teachers, isolated the factors’ individual effects on measurement error. Furthermore, a D study determined how the various sources of error should be manipulated in order to reduce error to the greatest extent, while increasing the generalizability of the rating. A second D study produced an assessment procedure for obtaining dependable ratings, which generalize to a student teacher’s overall teaching ability. The G study results from both analyses indicated that, in order to generalize teaching ability beyond the observed situation, students must teach at least two different lessons which are rated by two raters at the same time on two rating occasions. The D studies provided a practical procedure for obtaining dependable measures of a student teacher’s teaching ability, the p x (r x d) design. The design allows two raters to independently rate two different lessons on two rating occasions. This is a practical procedure that could be easily applied in a real student-teaching situation.

Lu, Chunlei. *A descriptive analysis of selected personality traits of student teachers in physical education*, 2900. M.S., State University of New York, Brockport (Reginald Ocansey). (63pp 1f $5.00) PE 4185

This study investigated changes in six personality traits over the course of a teaching semester. The personality traits measured included anxiety, concentration, confidence, mental preparation, motivation, and cooperation. An adapted Psychological Skills Inventory for Sport (PSIS) questionnaire was administered to student teachers before (PRE), at mid-term (MID), and immediately after (POST) a student teaching period. Repeated Measures Multivariate Analysis of Variance (rm MANOVA) and rm ANOVA and t-test of Scheffé were used to analyze differences for each of the selected personality traits in terms of time (PRE, MID, and POST). The results reported significant differences in anxiety, concentration, and confidence in terms of PRE, MID, and POST. It was also found that mental preparation changes significantly in terms of the time of PRE and POST. Significant differences in terms of time were not found for motivation and cooperation.

Morrison, Cary J. *The integration of anatomy and physiology into fifth grade physical education*, 1998. M.A., Maryville University (Daniel J. Rocchio). (118pp 2f $10.00) PE 4178

The purpose of this study was to measure the effectiveness of integrated anatomy and physiology lessons on fifth grade students taught in their physical education class. Knowledge base, attitudes, and participation level changes were the targeted areas during the study. This quasi-experimental study looked at the changes that took place in the control group and the experimental group over the eight week study. The evaluations of this project were obtained through analyzing the test scores of the control and experimental groups; a pre-test and a post-test were administered. There was an attitude survey to identify changes in attitudes before and after the lessons were taught. Other evaluations came from teacher observations, recorded in journal entries, and from looking at student journal entries throughout the unit. The results showed a dramatic increase in the content knowledge of the experimental group. The control group showed little improvement, very few made dramatic increases in scores. Another very noticeable difference was in the attitude and behavior of the two classes. The control group, who were exposed only to the standard physical education curriculum, were very negative about the test and general information, even when being covered in the class. They could not connect the information with activities, because there was never enough taught to them. The experimental group were eager to take the post-test and had confidence in what they were being tested on. They referred to the information and used the terms in general conversation outside of the classes where the material was covered. The things they were learning had a purpose. The learning became part of their physical education class and connections between the material and physical activities were made by many students.

Sauka, Mark J. *Differences in clinical evaluation models for first time pass rate of undergraduate athletic trainers on the NATA Certification Examination*, 1999. M.S., California University of Pennsylvania (William Biddington). (104pp 2f $10.00) PE 4187

The purpose of this study was to determine if the frequency of clinical student evaluation, amount of clinical teaching experience of a clinical education staff, and ratio of students to clinical supervisor had an effect on first-time pass rates of students on the NATABOC Examination. The subjects for this study were all of the undergraduate athletic training education program directors in the United States (88 of 91; the other 3 were used as a panel of experts). Thirty-two program directors returned a completed “Clinical Evaluation Questionnaire,” which was specifically designed for this study by the researcher. The information received from the subjects was compiled and analyzed using six, two sample t-tests; three for both
hypothesis 1 and hypothesis 3. The data pertaining to hypothesis 2 were analyzed using three Pearson Product Moment Correlations. All hypothesis testing was performed with an alpha level of .05 (P<.05). Undergraduate athletic training students who are evaluated in the clinical education component four or more times per academic year fare no better on any section of the NATABOC Examination on the initial attempt than students who are evaluated fewer than four times per year in the clinical setting. Also, the data showed that a higher average number of years of clinical teaching experience of a clinical education staff does not correlate into higher first-time passing rates of its students. This was noted for each of the three sections of the NATABOC Examination. Finally, institutions that have a ratio of students to supervisor in the clinical setting of four to one, or fewer, did not have a higher first-time passing rate on any section of the NATABOC Examination than institutions that had a ratio of greater than four students to one clinical supervisor.


All too often, students in physical education classes are only accountable for tasks such as attendance, dressing out, and maintaining positive behavior. To shift the focus to content accountability, teachers need to utilize methods and techniques that hold students accountable for subject matter performance. Another area of concern for physical education teachers has been the development of accurate and easy to use assessment techniques. Unfortunately, most of the formal assessment is determined by the previously mentioned events of compliance. There is currently little formal assessment in physical education that focuses on student performance in the subject matter. Furthermore, for assessment to be authentic, it must be performed in an on-going fashion within the setting where skills were intended to be performed. Thus, this project utilized an on going, in-class assessment technique as a means of not only holding students accountable for their performance, but also as a means for the involved teachers to improve their use of formal assessment. Results of this study may have important implications for helping teachers develop skills to teach directly towards standards and benchmarks such as those developed by the National Association for Sport and Physical Education (NASPE, 1995). The benefits of this research consisted of increased knowledge regarding effective methods of holding students accountable for their in-class performance in physical education. This study examined student performance, measured by the percentage of appropriate practice attempts of physical skills, and student fitness engagement, measured by students’ moderate to vigorous physical activity (MVPA) levels during their physical education classes. Appropriate practice attempts have been chosen as the first variable of measure because of their strong correlation with student learning. Physical activity engagement was chosen as the second variable due to its relationship to health related benefits. It was hypothesized that there is a functional relationship between the teachers’ use of an on-going, in-class performance assessment teaching technique and students engaging in a higher percentage of appropriate practice trials and moderate to vigorous physical activity (MVPA). Results of this study show mixed results in regards to using on-going, in class assessment as a method of accountability for both skill engagement and engagement in MVPA. It was demonstrated that teachers using this type of assessment technique are capable of performing accurate assessments of student performance during instruction.

**SOCIOLOGY AND CULTURAL ANTHROPOLOGY**

Butler, Rhea S. *Inclusive physical education: attitudes and behaviors of students*, 2000. M.A., Ohio State University (Samuel R. Hodge). (128pp 2f $10.00) PE 4167

The inclusion of students with various disabilities in general physical education has become increasingly common in schools. Within the context of physical education, inclusion has been defined as a philosophical perspective that advocates the placement of all students with varied abilities and disabilities (mild to severe) into classes with peers in their neighborhood schools (Block, 2000; Hodge, Murata, Kozub, & Sherrill, in review). However, there is limited research concerning the attitudes of students with and without disabilities towards each other relative to inclusion in physical education. The purpose of this study was to examine the attitudes and behaviors of 6th grade students with and without disabilities relative to being educated in an inclusionary physical education program. Participants were students with disabilities (n=2) and students without disabilities (n=16) from a rural middle school in Midwestern Ohio. Contact theory’s structured contact variables (Allport, 1954; Sherrill, Heikinaro-Johansson, Slininger, 1994) served as the theoretical frame for this study. Data collection and triangulation involved both quantitative and qualitative methods. Overall, findings suggest that students with and without disabilities exhibited positive attitudes and behaviors towards one another within an inclusionary physical education program. More specifically, responses to the *Children’s Attitudes toward Integrated Physical Education* (Block, 1995) attitudinal instrument revealed that students without disabilities held positive attitudes toward including peers with disabilities (i.e., mental retardation and physical disability). In support of this finding, the *Analysis of Inclusion Practices in Physical Education* (Hodge et al., 2000) behavioral observation instrument showed that, when interactions did occur, students with and without
disabilities mostly interacted in appropriate ways. In addition, responses to The Inventory (Webb, 2000) attitudinal scale indicated that students with disabilities (i.e., a girl with mental retardation and a boy with a physical disability) held favorable attitudes towards their peers without disabilities. Again, this finding was supported by themes that emerged from semi-structured interviews suggesting that positive relationships and interactions did occur between students, with and without disabilities, and their teachers. Overall findings in this study lend support to contact theory’s structural contact variables (Sherrill et al., 1994). Importantly, this study allowed us to gain additional insight regarding the attitudes and behaviors of students with and without disabilities toward one another in an inclusive physical education program.

Chapin, Timothy S. Urban revitalization tools: assessing the impacts of sports stadia at the microarea level, 1999. Ph.D., University of Washington (Richard Morrill). (527pp 6f $30.00) PE 4175

Central cities throughout the United States have seized upon sports facilities as a means to revitalize specific districts within their downtowns. Not to be outdone, suburban cities have also invested millions in sports facilities to illustrate their “coming of age” and to focus development into designated districts. During the planning and development stages of these projects, stadium proponents noisily argue that these projects generate employment opportunities, attract private investment, and provide significant image benefits to the cities that invest in them. Governments justify their expenditures upon these claims of economic development at both the metropolitan and local levels. Despite these claims, mounting evidence suggests that sports stadia have only marginal positive impacts upon the metropolitan economy. However, most of these studies of sports facilities have focused upon the economic impacts at the metropolitan level. Those very few studies that have attempted to assess the local district, or “microarea”, impacts of sports facilities have so far generated mixed results. This dissertation addresses the “microarea gap” in the literature by re-focusing the analysis to the microarea level. Using a comparative case study approach, this paper identifies, quantifies, and assesses the microarea impacts of recently opened sports stadia in three cities: Baltimore, Cleveland, and Arlington (TX). The study centers on parcel-level land use data collected for the districts surrounding these stadium projects. Demographic data and interviews with local stakeholders augment the study to provide a more complete assessment of impacts at this level. This study has far-reaching implications for future large scale tourism and recreation-oriented development projects. Research results provide cities with a better understanding of the microarea benefits and costs associated with sports stadia projects.

Diana, Augusto. Youth at play: preventing youth problem behavior through sport and recreation, 2000. Ph.D., Northeastern University (Thomas Koenig). (277pp 3f $15.00) PE 4211

Though there is general agreement that sport is important, there is substantial debate over whether sports encourage or mitigate deviant and antisocial behavior. There is even less agreement about sport’s ability to promote pro-social behavior, especially among youth. There is a body of literature and research in the social sciences that attempts to demonstrate sport and recreation’s relative benefit or harm to society. This dissertation provides an empirical study of this literature, by addressing the impact of sports on at-risk youth. It also extends sociological treatments of sport to a wider array of formal and informal activities. Youth with positive sport attitudes were less likely to engage in delinquency and substance use, as were youth who participated in structured recreation, like traditional extracurricular activities. Youth who participated in unstructured, individual recreation activities, by contrast, were more likely than their peers to engage in delinquency and substance use. Given this dissertation’s focus on the relationship between social institutions and youth antisocial behavior, the opportunity to understand ways to monitor and regulate potentially chaotic and non-normative behavior is critical. These findings have significant implications for social policy and youth programs. It is argued that sport and recreation interface with other normative social institutional spheres to generate social capital opportunities for youth. Social policies and social programs that emphasize these opportunities, and that instill healthy structure into youth lives, may produce the greatest results. At a minimum, they are attractive because they are inexpensive and far-reaching. Punitive strategies, by comparison, show little, if any, evidence of effectiveness, while proposing costly and extreme measures. With even a fraction of the punitive public money redirected toward preventive avenues, the potential to avert long-term costs, minimize personal harm for youth and adults, and maximize the public experience of the “generalized other” (Mead, 1934) is significant. Fields like therapeutic recreation (Granfield, 1996), historical connections between sport and religion and sport and cultural groups (Riess, 1989; Stevenson, 1997), and even sport and work (Messner, 1989; Murray, 1994; Young and Reasons, 1985), show the breadth of the possibilities for sport and recreation policies in regard to youth. Caution is recommended in implementing sport programs for youth. Midnight basketball became a political football, the data here would suggest, because of a lack of theory-base, direction and structure (the drop-in concept is highly unstructured). Sport and recreation programs appear to be more efficacious if they form a part of the youth’s normative experience (in schools, with family involvement, or through structured peer associations). This benefit is maximized if programs are structured, skills-based, normative, team-focused and learning-rich. The inescapable conclusion of this dissertation is that
The focus of this dissertation will be non-work activities, specifically those that constituted the physical culture of Oakland in the second half of the nineteenth and the early-twentieth centuries. Ethnic and class group activity that involved physical recreations, sport, and athletics, and those institutions which facilitated these multifaceted group behaviors, will be examined. Oakland’s favorable physical environment allowed miscellaneous “entertainment entrepreneurs” to site their for-profit enterprises in and around the city. Many of these businesses offered Oaklanders and visitors to the city a site where they could engage in, or observe, physical recreations. Oakland’s “natural advantages” were not lost on the city’s business and political leadership, and they sought to take advantage of them. Oakland’s geographic and climatic good fortune were utilized within a program of city boosterism. All of these phenomena played a role in the rise of Oakland and will thus receive attention. This type of study allows for a very particular examination of community life. From it can be teased the aspects of daily life that Oakland’s nineteenth-century residents—be they immigrant, migrant, or native-born—deemed important. For many Oaklanders, engaging in traditional physical recreations had a specific utility. For some newcomers, such activity probably aided in their adjustment to a strange place—this was important because most all Oaklanders, certainly early on, arrived there from somewhere else. Out-of-doors games and sport were not only fun to play and watch, but they came to be regarded as good for the participants’ physical and mental health. This work will attempt to uncover which non-work activities made the most sense for Oaklanders to engage in, and why they chose as they did.

McGowan, Kathleen. The impact of extracurricular athletic participation, gender, and grade level upon elementary school students’ attitude toward physical activity, 2000. M.S., Slippery Rock University (Betsy A. McKinley). (243pp 3f $15.00) PE 4177

A revised version of the Children’s Attitudes Towards Physical Activity (CATPA) Inventory (Shutz, Smoll, Carre, & Mosher, 1985) was administered to 253 (f=120, m=133) elementary school students in third, fourth, and fifth grade to determine the impact participation in extracurricular physical activity programs, gender, and grade level had on students’ attitudes toward physical activity. Questions utilized a five-point Likert scale using bipolar adjective pairs and happy/sad faces to measure the subjects’ value and enjoyment of the 10 subdomains of physical activity. Six hundred Chi square (x²) statistical analyses (p < .05) were used to compare gender, grade, and participation rates in two extracurricular programs. Follow-up interviews were performed with 20 randomly selected students. Results indicated that all groups of subjects had positive attitudes toward physical activity. Constructs of physical activity that most strongly correlated to positive attitudes were physical activities: (1) for social growth, (2) for health and fitness, (3) for social relations, (4) as the beauty in human movement, (5) as the strength in human movement, (6) as the release of tension, (7) as provisions for competition, and (8) as gender appropriate. While many differences in responses to the 10 constructs of attitude toward physical activity were found within each of the nine groups (the levels of comparison within the subject groups of gender, grade level, and participation rates), no differences in overall attitude scores were observed among the three subject groups.

Nelson, Kelly. Gender and sexuality at play: women professional athletes and the people who watch them, 2000. Ph.D., Brandeis University (Sarah Lamb). (240pp 3f $15.00) PE 4197

This dissertation explores multiple constructions of gender and sexuality within the context of women’s professional team sports in the United States. Women’s team sports have been undergoing an unprecedented growth spurt in popularity and professionalization in the 1990s. This work is an anthropological study of the responses to these new sports teams, of what is being said and thought about women in this new role as professional team athletes. My findings emerged from two seasons of ethnographic fieldwork conducting participant observation, in-depth interviews, life stories, and surveys. I present four public evaluations of female athletes as constructed by the people watching them. I examine how these evaluations confirm and contest cultural themes on gender. One of these evaluations—that women are better athletes than men—are—is explored in depth. Sports spectating is also examined through the lens of sexual identity. I discuss how two elements of spectatorship—the process of spectator identification and the links between community and spectatorship—take on different shapes in the case of lesbian fans of women’s sports. This dissertation engages several on-going theoretical conversations about sports, spectators, gender, and sexuality, and builds interdisciplinary bridges between feminist theory, popular culture studies on fans, and research on sports spectators. It joins a growing body of multi-sited ethnographic work that
challenges and re-thinks the field and location of anthropological research. This dissertation also provides an ethnographic account of women’s sports fans, a relatively unstudied group. Along with recording a present-day cultural phenomenon and its place in the lives of athletes and fans, I use women’s professional sports as a site through which to examine the public forging of gender and sexuality within contemporary US popular culture.

Schroeder, Peter J. The relationship between academic integration and basketball participation at one NCAA Division III institution, 1998. M.A., University of the Pacific (Becky Beal). (116pp 2f $10.00) PE 4216

The purpose of this study was to assess the relationship between basketball participation and academic integration at one NCAA Division III school. Research on the college experiences of NCAA Division I male student-athletes in corporate sports has demonstrated that athletic participation does not enhance academic integration. Conversely, Division I women athletes have become academically integrated despite participating in intercollegiate athletics. Therefore, this study sought to discover integration differences between males and females at the Division III level and made comparisons with the Division I literature. Academic integration was defined as a belief in the academic goals of an institution based on academic involvement, peer interaction, faculty interaction, and involvement in work, sport, or other extracurricular activities. Nine male and five female Division III basketball players from one liberal arts college were interviewed. Based on qualitative analyses, three major themes were identified. First, the student-athletes were predisposed to academic integration based on their high school grade point averages, test scores, parents’ education, and social class. Second, once in college, they became academically integrated through academic planning, extracurricular involvement, and peer and faculty interaction. Finally, through their coach’s assistance with academic planning and the social interaction it created, basketball played a partial role in the integration process for men. Women, however, did not use basketball as their primary means of establishing social ties and did not receive academic assistance from their coach. These were the only differences between genders. The school’s academic climate and structure were the most significant factors having an impact on academic integration. The coach’s ability to support these was a secondary factor. When compared to Division I males, these male student-athletes were much more integrated. The females in the current study were similar to their Division I counterparts with respect to academic integration.


The purpose of this study was to analyze exercise messages in American popular magazines. A critical perspective and historical sociological methods were used to examine more than 500 magazine articles published from 1925 to 1968. A common factor in many articles was the use of ideology mixes. Magazines used biomedicalization, materialism, nationalism, and patriarchy in several combinations to authorize restrictive exercise norms. Exercise norms were stratified by age, class, gender, and race, but changing ideology mixes and exercise norms often reflected changes in society. Biomedicalization authorized doctors as gatekeepers. It prescribed moderate activity for affluent men, but encouraged vigorous exercise for physical laborers, women, and people over 40 years of age. Biomedicalization initially encouraged vigorous activity for boys and men, then prescribed it for cardiac patients. Patriarchy promoted women’s figure consciousness and authorized relaxing or passive exercise and dieting to attain changing standards of beauty. Patriarchy also reminded women of parenting and housework obligations which provided exercise as work. Materialism authorized greater social support and exercise commodities for affluent people, but intellectuals used materialism to trivialize exercise as alienating low-class work. Racism was rarely overt, but status quo racism was implied by the invisibility of minority images and materialist exclusion by class. Nationalism commanded male youth to exercise for survival, and it promoted female youth for national security, but it had limited influence during peacetime. The analysis indicates that messages varied between exercise promotion and deterrence, before exercise gained greater legitimacy in the 1950s and 1960s. However, media messages continued to reinforce sedentary behavior and contemporary resistance against exercise. Exercise messages have: (1) been restrictive and contradictory, (2) promoted negative myths regarding exercise in its relationship with productivity, health and weight loss, and (3) reinforced consumer desires and expectations for “fast and easy” results. Judging the power of magazine messages is problematic, however. Many poor people were not privy to magazine messages, and magazine consumers likely ignored or defied various messages by reading selectively. Further research should identify contemporary ideology mixes in sophisticated health and sedentary media messages. Practically, the ultimate goal is to advance consumer awareness and decision-making.

SPORTS MARKETING

Ahrenhoerster, Greg, Take me out to the ballgame: an examination of sports in twentieth-century American fiction, 1998. Ph.D., University of Wisconsin, Milwaukee (Bruce Stark). (207pp 3f $15.00) PE 4189

For many Americans, sports are a means through which individuals can escape the chaos of industrial society in order to challenge and analyze themselves in ways not
available in the modern world. However, sports have also become part of the industrial capitalist machine and, thus, have become corrupted, creating a paradox. Influenced by their respective views of American sports history, Euramerican male, African American, Native American, and female authors have explored this complex relationship through their fiction in different ways. Oftentimes, characters in American fiction try, with varied success, to identify a sporting ideal that can carry over into the real world and serve as a guide. This quest often fails unless the character can completely free himself or herself, from industrial society, which is difficult, due to the capitalist influence on sports.


The purpose of this research is to conduct a gap analysis between sports organizations and commercial corporations for sports sponsorship applications so as to develop successful sponsorship strategies to serve the development of sports marketing in China. By taking a comprehensive look at the economic, political, and cultural factors influencing the development of Chinese sports marketing, this study surveyed all major sports organizations and most of the commercial enterprises involved with developing sports sponsorship strategies that build brand image and product sales in China. With 180 sports officials and business executives responding to a questionnaire, this study produced three major findings. First, sports sponsorship is a business vehicle to move sports organizations and corporations together. The problems that emerged in sports marketing in China were identified as strategic issues. Secondly, there is a large philosophical gap separating the sport-centered and marketing-centered mindsets. Consequently, there are significant conflicts regarding values, interests, and operational preferences that threaten the future success of sports sponsorship programs. Finally, while Chinese sports are moving from a purely Olympic-driven to a cooperative position combining sports and marketing, the transition is slow. As a result of this study, a hypothetical relationship theory was developed. A step-by-step strategic management strategy with five principles was recommended as well. The following five principles are geared to overcome the current barriers blocking successful sports sponsorship programs in China: mission standard of mutual benefit, partnership structure, cost-effective skills, cooperation leadership style, and process-oriented resource management strategies.

Jaston, A. T. *A theoretical model to enhance the popularity of college soccer*, 1998. Ph.D., University of Maryland (John W. Churchill). (261pp 3f $15.00) PE 4214

The aim of this investigation was to study the nature, origin, and status of soccer, and to determine whether ACC soccer players agreed with the suggestions of the investigation as presented in a theoretical model, in order to determine recommendations for increasing the popularity of the game of soccer if warranted. The exploratory study involved both qualitative and quantitative analyses. Many aspects of soccer were determined to provide background for the study. The interview and questionnaire techniques formed the procedural aspects of the research, which led off with Pilot Study One at the Italia ’90 World Cup, involving World Cup professional soccer coaches and professional players. A second pilot study was done at the Department of Kinesiology at the University of Maryland. The final revised questionnaire resulting from the two pilot studies was returned from the male soccer players of the five universities of Clemson, Duke, Maryland, Virginia and Wake Forest. The theoretical model was partially supported by the findings. The statistical analysis included Pearson Product Moment, Chi-Square, and Factor Analysis with VARIMAX Rotation. The general analysis was done in three different categories: individual item analysis, a comparison between players of University of Virginia and those of four ACC universities, and a second comparison between ACC soccer players and spectators at a soccer game. Some of the conclusions listed center around setting up a backboard above the goal, limiting the “offside” rule, limiting the number of defenders on corner and free kicks, substitutions, and widening the goal from 24 to 26 feet. The study suggests that the recommendations be used on a trial basis in the ACC for one soccer season. If the results truly show that scoring is improved, then the significance of the study would be clear. College soccer, youth soccer, and perhaps even professional soccer, might benefit from the resulting increase in the popularity of the game of soccer.


This study traces and analyzes the development of public relations work for intercollegiate athletics in American higher education. Such work evolved in the context of a “sport-media culture” that flowered in the 1920s, marked by intensive media coverage, commercialism, and pervasiveness within the larger culture. This study concentrates on the fifty years from 1911 to 1961, when the practice of collegiate athletic publicity emerged and evolved, and argues that it developed organically within a sport-media system that rests on a symbiotic relationship between the media and athletics. As that relationship grew complex, college football coaches and athletic directors sought ways to gain control over the way they and their teams were portrayed in the popular media. They hired student journalists, former student journalists, or sometimes
This study finds that collegiate athletic publicists foraged a partnership with the news media in the Midwest in the 1920s. The relationship was symbiotic in that it furthered the interests of both the institutions and the media. The practice of athletic publicity then grew slowly, but steadily, until the postwar boom and the arrival of television in the late 1940s. During the Forties and Fifties, this publicity function became generally housed in athletic departments and was established as a regular, full-time position at virtually all colleges and universities that field athletic teams. This work was accepted and even encouraged by campus presidents as part of operating athletic teams for public entertainment, and by the news and entertainment media as a natural partnership. The practice of systematic athletic publicity influenced mass communications and served institutional egoism, gate receipts, and media commercialism. Athletic publicists became linchpins of the sport-media culture.

**DANCE**

Cieslewicz, Lindsy S. *Dance and doctrine: Shaker and Mormon dancing as a manifestation of doctrinal views of the physical body*, 2000. M.A., Brigham Young University (Catherine Black). (113pp 2f $10.00) PE 4190

This thesis compares the dancing of the Shakers (The United Society of Believers in Christ’s Second Appearance) and the Mormons (The Church of Jesus Christ of Latter-day Saints or LDS Church) during the nineteenth century, as it was influenced by their doctrinal beliefs about the human body. Specifically, it examines how the role of the physical body in achieving mortal happiness and immortal salvation was viewed by each group and how these beliefs were reflected in their dancing. It describes the different forms of dancing performed by each religious group and how dance functioned as worship and recreation for the members of each religion during the nineteenth century. Research for this study was taken from primary and secondary sources, including a large number of Shaker and Mormon journals, diaries, and autobiographies. Major doctrinal works from each religion were also consulted to compile a summary of doctrinal beliefs about the physical body for each religion. This study found that the dancing of the Shakers reflected doctrinal beliefs of the need to be freed from the corrupt human body. In contrast, the dancing of the Mormons exhibited the Latter-day Saint belief in celebrating the body. The doctrines of each religion about the role of the body in attaining mortal joy and immortal salvation were easily recognizable in the dances that the two groups performed. Although beliefs about the body cannot be considered in isolation from other motivational factors, they can be used as a means of studying how and why particular religious or cultural groups dance. This method of evaluating dance, as a function of beliefs or ideologies about the human body, is given as a possible method for studying other cultural or societal groups who dance, and whose beliefs about the body may be reliably gathered.

Davis, Amanda J. *Dance and the lived experience: a phenomenological account of a performer’s journey*, 2000. M.A., Brigham Young University (Pat Debenham). (101pp 2f $10.00) PE 4191

Phenomenology is the study of consciousness during a lived experience. The lived experience is a phrase used in phenomenological research to refer to the world at the present moment, as immediately experienced. Because dance is an embodied, immediate art form, studying the lived experience is significant to dance analysis. This paper seeks to illuminate the understanding of dance performance by providing phenomenological descriptions of a performer’s lived experience, with interpretations of its textual meanings. For the purpose of this research, various phenomenological methods were combined to assist in the process of meaning making through reflection, description, and interpretation. The meaning making process begins with written descriptions of a rehearsal and performance experience for a solo work choreographed for the author by Amy Lives, a Brigham Young University faculty member. To interpret the descriptions, three experiential structures are revealed—corporeality, spatiality, and temporality. After the interpretation, a comparative analysis was made of the similarities and differences between the descriptions. Applying phenomenology to the written descriptions allowed the author to learn that her way of being in the world during a performance is not through an objective body, but one that embodies time and space, creating a world through situation and experience. Through her body, the world was revealed and the performance existed. For the author, using phenomenology to research dance performance has brought a new awareness and understanding of what transpires during performance, and how one can use that information to encourage more enriching performance experiences.

Humphreys, Kathryn. *Theorizing experience: on the way to embodied language*, 2001. M.A., Texas Woman’s University (Penelope Hanstein). (40pp 1f $5.00) PE 4213

This work has become a case study of an active and intimate connection with a work of art; an aesthetic encounter bringing to the work a new and wider range of meanings, and with the addition of other voices, creating a participatory community. Beyond the hermeneutic phenomenology of my own experiences, including the creation of a theory of aesthetic experience, and the discovery of what it means to begin an interaction and follow it into “theory,” this paper serves as a guide for the creation of subtexts. I have noticed that there are a variety
of works, in all artistic disciplines, with which I form profound connections. These links manifest themselves in many ways, ranging from a simple acknowledgement of an aesthetic preference to an entire kinesthetic reaction to an entire work. Each of these responses, however, is grounded in my own experiences, which constantly inform the ways in which I view and understand the world. As a dancer, I find these experiences with texts often reveal my own kinesthetic relationships with language, a concept that I am constantly in the process of exploring. This kinesthetic nature of language, as well as my own personal relationships with texts, is constantly changing and evolving; it is a theory of aesthetic experience, a way of moving between what I encounter today and what I have discovered and will discover. These processes are embedded in the theoretical processes of hermeneutic phenomenology. To examine this transition, from personal experience to theorizing and back, I investigate Toni Morrison’s *Beloved* (1987), using it as an example of how layers of meaning can intersect. What follows is an exploration of my personal experiences with this text, the creation of theory and dialogue from those experiences, and a reflection on the place of this experience, and others like it, in my own teaching and critical pedagogy of arts disciplines. This paper is a collaborative encounter with several texts, including itself, and each reader contributes to that collaboration. It is also an examination of my own process of developing theory, of weaving experiences together to find new questions.

Long, Daniel N. *Qualifying for Olympic status: the process and implications for competitive ballroom dance*, 1999. M.A., Brigham Young University (Caroline Prohosky). (181pp 2f $10.00) PE 4215

Recreational or social ballroom dancing has long had a competitive counterpart which, over many years, has developed into a successful competition network involving a large number of countries throughout the world. The athleticism required to participate and obtain success in competitive ballroom dancing is one factor that has significantly promoted its success and development. This athletic rigor has recently led to the acceptance of competitive ballroom dance as a true sporting activity by a number of major sport organizations. The International Olympic Committee has recently recognized the International DanceSport Federation, a governing body in DanceSport, as an official Olympic Federation. Lack of understanding of this recognition and the Olympic acceptance process has led to the development and assessment of orthopaedic reconstruction techniques. In the first study, an autogenous patellar tendon ACL reconstruction was performed in a goat model in order to gain first-hand insight into the assessment of reconstruction techniques. Extensive tendon and fat pad proliferation were observed, along with significant reductions in the biomechanical properties of the host tendon. An existing mechanical model was used to obtain a description of the tensile response of the tissue. While these data helped explain some of the clinical complications documented in the reconstructed joint, they did not describe the role of the fluid within the healing tissue. Experimental evidence suggests that the tensile behavior of tendon is a function of the collagen structure of the tissue and the tissue hydration. The models currently available do not allow such a means by which the hydration effects might be explicitly explored. In order to study potential influences of water content on tendon tensile response, a finite element model of a subfascicle (a microstructural element of tendon) was constructed in the second study. The collagen fiber morphology reflected in the model interacted with the interfibrillar matrix to produce behaviors similar to those seen in tendon and ligament during tensile, cyclic, and relaxation experiments conducted by others. Although this model exhibited mechanical responses which were similar to those observed in whole tendon and ligament, it was preliminary in...

**BIOMECHANICS**

Atkinson, Theresa S. *Experimental and analytical development of a poroelastic finite element model for tendon*, 1998. Ph.D., Michigan State University (Roger Haut). (203pp 3f $15.00) PE 4181

Mechanical models which allow the mechanical response of tendon to be predicted and quantified are important in the development and assessment of orthopaedic reconstruction techniques. The issues and information contained herein will become an important historical documentation of an event that is shaping the future of competitive ballroom dancing more than any other in its long history. An in-depth analysis of the most prevalent DanceSport issues, of perception, adjudication, competition format, television revenues, marketability, participation of women, organizational control, and Olympic protocol and process, indicates that DanceSport will likely become a medal event in the 2008 Olympic Games. The bid to become an Olympic sport, whether successful or not, will undoubtedly become the most significant event in the history of competitive ballroom dance.
nature and as such contained some undesirable compromises. In the third study, a more detailed description of the subfascicular microstructure was incorporated into the model. This model was shown to exhibit reasonable relaxation and tensile responses, as well as a realistic, positive pressure profile throughout the subfascicle. In the fourth study, experiments were performed to support the development of the subfascicle model and its extension to whole tendon. The experimental data suggested that small portions of tendon exhibit a higher tensile modulus, a slower rate of relaxation, and a lower amount of relaxation, in comparison to larger specimens from the same location in the same tendon. In the fifth study, the subfascicle model was able to match subfascicle relaxation and constant strain rate tensile responses, as described in the previous experimental study. In addition, a fascicle model, consisting of two subfascicles surrounded by epitenon, was created to investigate potential interactions between subfascicles and the connective tissue membrane. This analysis suggested that the presence of connective tissues in tendon may play an important role in defining the whole tendon relaxation response. In the final study, the subfascicle model was utilized in the development of a recruitment model tendon. This work suggested that subfascicle organization within a tendon specimen also plays a role in the development of the relaxation response. These studies highlight the importance of the collagen microstructure in the development of the time-varying responses of tendon.

Carollo, James J. A model of gait performance based on functional sub-system quantification, 1998. Ph.D., University of Texas, Arlington (George V. Kondraske). (294pp 4f $20.00) PE 4209

In this experiment, a new model was developed to predict overall gait performance in mature women at risk for falling, using 12 sub-system performance capacity measures that collectively described their strength, balance, and lower limb coordination. The model was based on an analytical framework refined over the last decade for general systems performance modeling (GSPT), and empirical data collected from female subjects who had documented clinical deficiencies in either strength, balance, or coordination. A total of 31 subjects from 5 different test groups were comprehensively tested on 2 separate occasions. Test results from the 25 subjects in groups I (strength deficient), II (balance deficient), III (coordination deficient), and V (deficit free, normal) were used to derive separate models predicting 3 measures of overall gait performance (walking speed, inverse physiologic cost index: 1/PCI, and expert rating of gait performance) while each subject performed 2 distinct gait tasks (normal and fast speed walking). Corresponding multiple regression models were derived using the same data set, and were compared to the results obtained from the gait performance models using only the data from group IV (documented fallers, n=6, tested twice), that had not been used in either model’s derivation. The results of a two-way, repeated measures ANOVA (factors: model type and test date, α=0.05) showed that when the absolute difference between a model’s prediction and each subject’s measured performance was calculated, the difference was significantly smaller (more accurate prediction) using the gait performance model compared to the corresponding multiple regression model, for expert rating of gait performance in both the normal and fast speed gait tasks. The same analysis found no significant difference between the models for walking velocity and 1/PCI. These results substantiate the use of threshold (NCRA) models for predicting overall gait performance from gait sub-system measures, provide initial validation of its use in women at risk for falling, and offer further justification for the GSPT approach to human performance modeling.


The purpose of this study was to investigate the gait patterns in persons with chronic ACL deficiency (ACLD: n=10) who subsequently undergo surgical repair, and to determine how these individuals respond to unexpected forward perturbations (FP) compared to healthy controls (n=10). An unexpected FP was applied using a moveable force plate imbedded in a walkway. During non-perturbed (NP) gait, ACLD subjects exhibited similar knee moment patterns compared to healthy adults, but appeared to accommodate to ACLD through alterations of hip and ankle joint kinematic, kinetic, and muscle power patterns. Three months following surgery, these same subjects demonstrated a significantly different knee moment pattern and were significantly more flexed at the knee and hip during NP gait. These data suggest that time since injury plays an important role in the adaptation of gait mechanics and must be considered when evaluating post-surgical ACL subjects. These data also suggest that ACL surgery significantly alters lower extremity gait patterns and that the re-establishment of pre-injury gait patterns takes longer than 3 months to occur. When healthy adults experienced an unexpected FP, the hip was favored in maintaining control of the upper body and in preventing collapse. In response to the same FP, ACLD subjects demonstrated a hip moment pattern similar to controls, but a greater knee extensor moment. The increased knee moment pattern was more prevalent 3 months following surgery. These data suggest that ACLD and ACLR subjects rely more on knee extensor muscles for the prevention of collapse when reacting to an unexpected FP. Bilateral accommodations to ACL injury and surgery during NP and FP gait were also examined. During NP gait, healthy adults demonstrated asymmetrical hip moment and power patterns, whereas ACLD and ACLR subjects exhibited
symmetrical hip but asymmetrical knee mechanics. In response to the FP, healthy adults exhibited lower extremity joint symmetry, but the ACLD and ACLR group exhibited asymmetrical knee moment and power patterns. These findings suggest that ACL injury and surgery result in bilateral joint accommodations and that, when investigating ACL injured populations, bilateral control population data should be used in addition to non-injured limb data.

Wasielewski, Noah J. *The effects of graded treadmill running on foot and ankle kinematics in recreational runners*, 1999. M.S., Auburn University (David D. Pascoe). (128pp 2f $10.00) PE 4180

Uphill running has been speculated to produce injury by creating excessive misalignment at the rearfoot. The purpose of this investigation was to measure and interpret several variables of rearfoot misalignment during graded running. Sixteen (8 male, 8 female) young, recreational runners volunteered for participation. Each subject ran on a treadmill in a random sequence of 0, 10, 20, and 30% grades. The kinematics of three consecutive right foot falls were analyzed in three dimensions by motion analysis software. For each dependent variable (frontal plane relative range of motion, frontal plane absolute range of motion, rearfoot synchronicity, sagittal plane range of motion, sagittal plane maximal velocity, sagittal plane maximal acceleration) a one-way repeated measure ANOVA was performed to determine the effect of grade. Contrary to past speculation, the rearfoot appeared to move into a position of greater inversion with increased grade, lessening the potential for pronation-related overuse injury. Although the results indicate the rearfoot becomes more stable, uphill running may contribute to injury through other mechanisms.

Yu, Yeon-Joo. *Impact and shock attenuation during landing activities from different heights on different surfaces*, 2001. M.S., University of Tennessee (Songning Zhang). (133pp 2f $10.00) PE 4217

The purpose of this study was to examine impact shock attenuation during landing activities from different heights on different surfaces. Thirteen healthy and active subjects performed five trials of step-off landing, from four different heights (30, 45, 60, and 75 cm), shod and barefoot. Ground reaction forces (GRF), accelerations of the tibia and forehead, and kinematic data were sampled simultaneously. Increased heights caused increases in angular kinematic variables (range of motions, contact and maximum angular velocities of the ankle, knee, and hip joints). Few significant changes in kinematics were observed across the surface conditions. The first maximum GRF (F1) showed a trend of greater values in the shoe landing than that in the barefoot landing, with significant difference found at 75 cm. The second maximum GRF (F2) demonstrated a trend of greater values in the barefoot conditions than those in the shod conditions. Greater F1 and F2 values were observed with increases in landing heights. The maximum head acceleration (AccHead) showed few significant changes across the heights and surfaces. The first tibia acceleration (AccTibia1) was generally greater in the shod conditions than that in the barefoot conditions. On the other hand, the second tibia acceleration (AccTibia2) displayed a trend of greater values in the barefoot conditions than that in the shod conditions, with significant difference found at 60 and 75 cm. The shock attenuation index (AtteIndex) in the barefoot conditions was significantly greater than that in the shod conditions at all landing heights. The results suggested that the shoe provided an additional cushion to minimize impact forces and attenuate impact shock during the landing activities.

**SPORTS MEDICINE**

Anderson, Francine M. *Effect of exercise on bone mineral density of the forearm in premenarcheal girls*, 1999. Ph.D., Texas Woman’s University (Sue Smith). (198pp 3f $15.00) PE 4207

The purpose of this study was to determine the effect of selected exercises on bone mineral density (BMD) of the forearm, grip strength, and upper extremity endurance in premenarcheal girls. Subjects were 48 female volunteers, aged 6-11 years, from a private school. Data were collected from subjects with five initial assessments: (a) physical activity, (b) 24-hour dietary recall, (c) isometric grip strength, (d) upper extremity endurance, and (d) BMD measurement of the forearm using a pDXA (Norland Medical, Ft. Atkinson, WI). Subjects were assigned by stratified random assignment by age and ethnicity to either an exercise or a control group. Subjects in the exercise group participated in supervised, self-paced exercises designed to target the forearm. Subjects in the control group participated in regularly scheduled physical education classes. Both groups exercised twice a week for 32 weeks in 8 months. At the end of 8 months, BMD, grip strength, and upper extremity endurance were reassessed. These data were analyzed for between-group and within-group differences using repeated measures analysis of variance. The dietary recall was analyzed to provide descriptive statistics on dietary calcium intake. Normative data on BMD, grip strength, and upper extremity endurance were reported for this age group. No significant difference was demonstrated in BMD or grip strength between the exercise and control groups. Upper extremity endurance increased significantly in the exercise group. The results of this study provide a foundation for further study to determine the effects of site specific exercise on bone mass in premenarcheal girls.
This investigator examined the effects of flexibility exercises on the range of motion (ROM) and physical performance of individuals with developmental disabilities. Thirty-two healthy adults (24 males and 8 females) aged between 24 and 40 years were recruited from a sheltered vocational workshop center. They were randomly assigned equally to either a treatment or a control group. A combination design employing an experimental between-group repeated measure with a single subject unit time-series research design (Baseline Intervention) was used. All participants did the same recreation program, not involving flexibility exercises, during a six-week baseline period. During the following eight-week intervention period, the treatment group participated in a flexibility exercise program while the control group continued with the recreation program. Static stretching of each joint lasted nine seconds per stretch. Each joint was stretched five times per session. The program was conducted three days per week. Passive joint flexion ROM (shoulder and hip) was measured using the Cybex EDI 320 Inclinometer. The dependent variables were measured every two weeks of the program. The data collected were first analyzed using descriptive statistics, graphic display, and visual inspection. Hypotheses were tested using the mixed model with repeated contrasts measure, the multiple analysis of variance procedure, paired t tests, and Pearson’s correlation. The results showed that there was a statistically significant difference in joint ROM due to treatment effect between the treatment and control group (p<.05). For the treatment group, gains in ROM were statistically significant (p<.05) at the sixth and eighth week of intervention period. At four weeks post-treatment, the gains in range of motion remained statistically significant (p<.05). Flexibility exercises had no statistically significant effect on physical performance scores (p>.05). There was a general trend of negative correlation between static joint ROM and physical performance for the treatment and control groups. The study demonstrates that flexibility exercise given for an eight-week period significantly enhanced joint ROM in this population of individuals with developmental disabilities. Flexibility exercises tended to reduce performance. Results also show that increase in joint range of motion is a poor predictor of physical performance.

Henry, Dahlia. The effects of 15 weeks of resistive training with chromium supplementation upon muscle strength, body composition, and urinary chromium excretion in untrained college-aged females, 2000. M.S., Slippery Rock University (Gary S. Pechar). (93pp 1f $5.00) PE 4170

Twenty-two healthy untrained female college students, who had not participated in regular strength training for at least six months prior to the study, volunteered to serve as subjects. Dietary records and 24 hr urine samples were collected from each subject to roughly estimate protein intake, Cr content in the diet, and Cr content in the urine. Muscular strength and body composition were assessed before and after 15 weeks of resistive training. The subjects were randomly assigned in a double blind fashion to receive either the Cr supplementation or placebo. The Cr supplement contained 500 mcg of chromium picolinate. The pre- and post-strength test was a 1RM, on the Cybex and Nautilus resistance machines, to determine upper and lower body strength. The skinfold and hydrostatic weighing techniques assessed body composition. The resistive training program took place three times per week on non-consecutive days for 15 weeks, with three sets of 8 to 12 repetitions using the Cybex and Nautilus resistance machines. The experimental design was a randomized pre-/post- design. Statistical analysis was performed using an independent t-test to determine the effect of Cr supplementation on LBM, percent body fat, urinary Cr excretion, and strength performances. There were no significant group differences in body weight, percent body fat, LBM, urinary Cr excretion and strength performance at the beginning of the study. There were no significant differences in body weight, percent body fat, and LBM following the 15-week training period between the supplemental and placebo groups. Twenty-four-hour Cr excretion in the Cr group was significantly greater than in the placebo group following the 15 weeks. In the strength measurements, with the exception of the leg extension, there were no significant differences between groups at the end of 15 weeks. Thus, it appears that chromium supplementation has little effect upon body composition and muscle strength of untrained college females.

Jones, Kim D. A randomized controlled trial of muscle strengthening versus flexibility training in fibromyalgia, 2000. Ph.D., Oregon Health Sciences University (Carol S. Burckhardt). (240pp 3f $15.00) PE 4184

Although resistance training has long been accepted as a means for developing and maintaining muscular strength and mass, it has only recently been recognized as a factor to promote health in chronic disease states. The purpose of this study was to determine the effectiveness of a muscle strengthening program as compared to a stretching program in women with fibromyalgia syndrome (FM). Sixty-eight women with FM, ages 28-59 years (mean 48), were randomly assigned to a 12-week, twice weekly exercise program consisting of either muscle strengthening (treatment) or stretching (control). A certified exercise instructor taught both classes. Progressive muscle strengthening exercises were specifically designed to minimize post exercise soreness. For example, exercises were kept near the midline of the body and provided several seconds...
delay between contractions. The control group performed non-progressive passive stretches. Outcome measures included: weight, body fat, isokinetic dynamometry muscle strength (shoulders and quadriceps), shoulder flexibility, tender point count, total myalgic score, fibromyalgia impact questionnaire (FIQ), and scales for anxiety, depression, self-efficacy, and quality of life. The evaluating investigator (KJ) was blinded to group assignment and collected all outcome measures except for body fat and muscle strength (which were collected by a blinded exercise science technician). Ninety three percent (n=63) of women returned for post-testing. Final statistical comparisons were made on 56 subjects who attended a majority of classes. Within-group testing of pre- and post-intervention outcome measures showed a significant improvement in both treatment group (14 measures) and control group (7 measures). No statistically significant differences were found on independent t-tests between the treatment and control group. Change scores indicated that all measures, except flexibility, improved more in the treatment group than in the control group. Improvements in strength were not associated with worsening in any measured outcome, including pain scores. It is feasible for fibromyalgia patients to take part in a specially tailored muscle-strengthening program and experience an improvement in overall disease activity, without a significant exercise induced flare in pain. Flexibility training alone also results in overall improvements, albeit of a lesser degree.


Closed kinetic chain exercises are frequently recommended in current literature for rehabilitation of the scapular stabilizing musculature. Unstable support surfaces are said to increase the difficulty of these exercises, but little research has been done to substantiate this claim. The purpose of this study was to determine the effect of various unstable support surfaces on EMG activity of the serratus anterior in a closed kinetic chain position for exercise, and to determine whether an order of progression could be suggested when using unstable support surfaces in rehabilitation. Twenty-four subjects performed three trials under each of the four conditions. Electromyographic data that was collected from the serratus anterior failed to show significant differences in the activity level of that muscle in relation to the support surface. All surfaces that were studied did show the ability to elicit activity of the serratus anterior in a closed kinetic chain position.


The purpose of this study was to examine the health care differences among foreign countries, identify the health precautions needed in foreign countries, identify the medical specialists who are selected for international team travel, and to determine the adequacy of medical preparation. The population surveyed included medical professionals, coaches, and various other personnel within each of the 37 Governing Bodies of the Olympic sports. One hundred eight individuals were mailed, faxed, or electronically mailed surveys in order to gather the necessary data. Eighty-one surveys were returned, giving the researcher a 75% return rate. Results of this study indicated international travel presents unique concerns in terms of exposure to various health risks and varying levels of medical care and availability. An SAS frequency procedure revealed less than 40% of the individuals surveyed indicated that all international trips are made with a medical professional. Medical professionals indicated as traveling with teams included athletic trainers, physical therapists, massage therapists, chiropractors, strength and conditioning specialists, exercise physiologists, osteopaths, sports medicine physicians, emergency medicine physicians, orthopedic surgeons, orthopedists, surgeons, neurologists, family practice physicians, sports psychologists, and various combinations. Frequency analysis revealed less than 70% of respondents have updated medical histories on the athletes and less than 50% establish the most recent health status prior to departure. A Fisher’s Exact test revealed a significant relationship (p<.05) between being provided country information and seeking information from the U.S. Embassy or State Department. Over 80% of the respondents do not have information provided to them; nor do they seek information on their own. A significant relationship (p<.05) also existed between being provided information as to where to seek medical assistance, and contacting and/or locating hospitals on their own. Only 18.75% of those individuals not provided information contact and/or locate hospitals. These findings suggest to the researcher that there is inadequate medical preparation for international team travel.

PHYSIOLOGY AND EXERCISE EPIDEMIOLOGY


The purpose of this study was to examine the effect of extreme exercise on vitamin B-6 metabolism and urea nitrogen. Nine men and five women completed two 5-day trials; Trial 1 (T1) included a 50-km ultramarathon on day 4 and during Trial 2 (T2) subjects were “inactive” on day 4. During both trials, subjects consumed a diet providing
...n 2.0 and women 1.5 mg of vitamin B-6. With the exception of the ultramarathon, T1 activity was replicated during T2. Twenty-four-hour urine collections were completed and blood was drawn pre-race (pre), mid-race (mid), post-race (post), and 60 minutes post race (P-60). On the inactive, day blood was drawn at the same intervals. Plasma was analyzed for pyridoxal 5'-phosphate (PLP), pyridoxal, 4-pyridoxic acid (4-PA), urea nitrogen (PUN), creatinine, albumin, glucose, and lactate concentration and alkaline phosphate activity. Urine was analyzed for 4PA, creatinine, and total urinary nitrogen (TUN). During T1, compared to pre, plasma concentration increased 17% at mid, decreased by 5% by post, and 19% by P-60. During T2, plasma PLP concentration decreased 13% pre to P-60. During T1, plasma 4-PA concentration increased 135% and the ultramarathon was higher than that excreted the day before and the day after. During T1, from pre to post mean PUN concentration increased 36.9%, and the average rate of increase from pre to mid, mid to post, and post to P60 was .05, 1.75, and 2 mg/dL/hour, respectively. During T1 on days 3, 4, and 5, 88%, 100%, and 95% of nitrogen intake was excreted in the urine compared to 86%, 83%, and 84% for the same days during T2. The day of the ultramarathon, 24-hour TUN excretion was 2 g higher than the previous day. Extreme exercise of greater than six hours initially increased the plasma concentration of PLP but ultimately results in a significant decrease in plasma PLP, an increase in plasma 4-PA, and an increase in percent of dietary vitamin B-6 (as 4-PA) excreted in the urine. Additionally, the rate of change in PUN increases as duration increases.

Nordvall, Michael P. A comparison of cardiac markers between suspected myocardial infarction patients and marathon runners, 1998. Ed.D., University of Northern Colorado (Carole M. Schneider). (240pp $15.00) PH 1725

Injury to skeletal muscle from high force eccentric exercise has been shown to complicate the diagnosis of acute myocardial infarction (AMI) by release of non-specific protein markers. Certain AMI markers, such as total creatine kinase (TCK), creatine kinase MB isoenzyme (CK-MB), and myoglobin, are found in both skeletal muscle tissue and myocardial tissue. As such, injury to skeletal muscle through eccentric exercise may elevate these markers to levels typically diagnostic of AMI. However, individuals presenting to an emergency room (ER) with symptoms of AMI, such as angina, may not be experiencing discomfort specific to the myocardium, especially following intense eccentric exercise. Therefore, the purpose of this study was to investigate the effects of exercise on serum and plasma markers of AMI in marathon runners completing the 1997 Pikes Peak Marathon. Values in marathon runners were then compared to individuals presenting to an ER with suspected AMI. Seventeen distance runners voluntarily participated in the study. Prior to, and upon completion of, the marathon at 0, 2, 4, and 6 hours post-race, values of serum TCK activity, CK-MB concentration, CK-MB index, cardiac troponin T (cTnT) concentration, and cardiac troponin I (cTnI) concentration, plasma CK-MB activity, and CK-MB isoforms, including CK-MB₂ (MB₂) activity, percentage of CK-MB (MB), and an CK MB₂ to CK-MB₁ isomer ratio (MB₂/MB₁) ratio, and whole blood relative lymphocyte percentage (% lymphocytes) and myoglobin concentration were obtained. Additionally, blood AMI marker results were obtained for TCK activity, CK-MB activity, CK-MB index, cTnI, and % lymphocytes from 29 individuals presenting to an ER with signs/symptoms of AMI for comparison to marathon runners. Significant mean increases in marathon runners above baseline and to levels diagnostic of AMI were noted for serum TCK activity (p<0.0001) and CK-MB concentration (p<0.0001), plasma total CK-MB activity (p<0.0001), MB activity (p<0.0001), and MB₂/MB₁ ratio (p<0.0001), and % lymphocytes (p<0.0001) and myoglobin concentration (p<0.0001). Slight elevations of cTnT (p=0.008) and cTnI (p=0.02) were noted in marathon runners immediately post-race; however, values returned to normal during subsequent blood draw times and never exceeded diagnostic criteria for AMI. Similarly, serum CK-MB index and plasma % MB remained unchanged from baseline in marathon runners during all post-race blood draws. When marathon runners’ peak post-race values were compared to suspected AMI patients, results showed that TCK activity (p<0.0001), cTnI (p=0.0035), and % lymphocytes (p<0.0001) were significantly different between groups. These results suggest that the above markers differentiate between the groups; however, while this may be the case for cTnI, it should be noted that TCK activity and % lymphocytes were altered to levels diagnostic of AMI in marathon runners during all post-race blood draws. In contrast, serum CK-MB and CK-MB index were not significantly different between groups, which suggests that neither marker clearly distinguished injury to skeletal muscle or myocardial tissue. However, CK-MB index never exceeded the upper limit diagnostic of AMI in any marathon runner during all post-race blood draws. The results of this study suggest that use of serum CK-MB index, cTnT, and cTnI, and plasma % MB is more effective at differentiating the site of tissue injury between skeletal muscle and myocardial tissue in marathon runners, compared to suspected AMI patients. Therefore, the likelihood of misdiagnosing AMI is reduced when using the above markers in patients who have recently participated in extreme endurance exercise with a high eccentric component, and who have presented to an ER with signs/symptoms suggestive of AMI. It is further recommended that an activity assessment be given to suspected AMI patients whenever possible.

Storer, Danielle R. The effect of the sequence of upper and lower body exercise upon heart rate and rate of perceived exertion in female adults, 2000. M.S., Slippery Rock University (Gary S. Pechar). (61pp $5.00) PH 1726
The purpose of this study was to compare the effects of the sequence of arm and leg ergometry exercise upon heart rate and rate of perceived exertion. The subject group in this investigation consisted of 15 female patients participating in a rehabilitation program at Physicians Plus Associates, P.C. Heart rate and rate of perceived exertion (RPE) responses were monitored as the subjects performed two exercise sequences. The data were analyzed by dependent t-tests. The following conclusions appear warranted within the limitations of the study. There was a significantly greater heart rate response for an exercise session with arm work before leg work, compared to an exercise session with leg work before arm work (p < 0.05). There was no significant difference in RPE response between an exercise session with arm work before leg work compared to an exercise session with leg work before arm work.

HEALTH AND HEALTH EDUCATION

Groombridge, Lana. A study of the stages of readiness to adopt exercise and strength training behaviors among adults 65 years and older, 1998. Ed.D., Ball State University (James McElhinney). (246pp 3f $15.00) HE 688

The purpose of this study was to determine whether the 5 stages of change identified in the transtheoretical model (Prochaska & DiClemente, 1983) accurately describe stages of adopting exercise and strength training behaviors among older adults; and to test if the variables of age, gender, education, current level of physical activity, and health problems are accurate measures of predicting stage. Participants included 277 residents of 6 continuing care retirement communities in a midwestern state. A site-administered survey instrument used a modified Stages of Change Instrument (Marcus, Selby, Niaura, & Rossi, 1992); the Health Status Inventory (Gorely & Gordon, 1995); and the Physical Activity Scale for the Elderly® (Washburn, Smith, Jette, & Janney, 1993). The study was the first to test whether the 5 stages could be found for strength training, an exercise type. All 5 stages of change were present in both exercise and strength training behaviors, but in differing proportions. Results suggest the need to design different strategies to move persons from one stage to another for strength training and exercise. The majority of participants were consistent exercisers, as 52% were in maintenance, the stage where people are exercising regularly and have been for longer than six months. The most promising result found 16% in the maintenance stage for strength training behavior, with 53% in contemplation, the stage where people are thinking about beginning. A logistic regression analysis was used to conclude that current level of physical activity and number of health problems have some predictive accuracy for stages to adopt exercise and strength training behaviors. The variables of age, gender, and education were not found to be predictive in this study.

Hawkins, Jennifer C. Quality of life and health status perceptions of elderly participants in the Purdue LifeSpan study, 2001. M.S., Purdue University (Gerald C. Hyner). (129pp 2f $10.00) HE 687

The purpose of this study was to investigate the relationship of quality of life (QOL) and health status (HS) perceptions of elderly men (n=55; 71.9yrs±6.7) and women (n=103; 73.7yrs±7.4) participants (n=158; 97% Caucasian; 60-97 yrs) in the LifeSpan study to physical and psychological health, activities of daily living (ADL), physical activity behaviors, and social interaction. The LifeSpan project was designed to establish national norms that can be employed to evaluate functional status and assist the elderly with maintaining independence in later years, thus improving QOL. Functional assessments and a questionnaire were used to evaluate QOL and HS information. QOL and HS were correlated (p=.01) with each other (r=.61), and both were also correlated, (p=.01), respectively, with the following: social interaction (r=.33 and .26); bodily pain (r=.27 and -.40); days of exercise/wk (r=.26 and .24); ability to perform ADL (r=.36 and .39); heart disease, such as heart attack and stroke (r=.22 and -.39); arthritic disease (r=.29 and -.25); and performance on functional assessments (r=.28 and .19). Stepwise regression analyses were performed, with QOL and HS as the dependent variable and the above 12 independent variables. The best model for predicting QOL included health status, social interaction, and functional assessments for a total of R2 of .41. The best model for predicting HS included QOL, health problems that limit physical activity, and heart disease, for a total R2 of .47. In this sample, regardless of age, 35% of the variability in QOL and HS was shared, while social interaction and functional assessments contributed further to perceived QOL, and physical activity limitation and heart disease contributed further to perceived HS. Questionnaire items were combined to create summed variables. These variables were then analyzed using Pearson Chi-Square. QOL was significantly related to exercise times per week, heart sum, arthritis sum, heart and arthritis sum, and daily activity sum. HS was significantly related to exercise per week, disease sum, heart sum, heart and arthritis sum, and daily activity sum. Global QOL was significantly related to disease sum, heart sum, arthritis sum, heart and arthritis sum, and daily activity sum.

Holstein, Robyn E. The effects of music on patients in a cardiac rehabilitation program, 2000. M.A., San Francisco State University (Marialice Kern). (41pp 1f $5.00) HE 690
This study examined the effects of music on patients in a cardiac rehabilitation program. Men and women (n=45), ranging in age from 43 to 86, enrolled in a cardiac rehabilitation program, participated in this study. The participants were required to have a cardiac history, including a myocardial infarction or diagnosed coronary artery disease, or to have had a cardiac surgery. Participants were in either Phase II or Phase III cardiac rehabilitation. They performed their prescribed exercise both in the presence and in the absence of their preferred type of music for a total of five minutes of rest with 20 minutes of exercise. Heart rate, electrocardiogram, blood pressure, rate pressure product, and rating of perceived exertion were measured prior to exercise, in a resting condition, and during exercise. No significant differences were seen in any of these. No significant differences were seen with music compared to no music, males compared to females, or the interaction of the music condition and sex. Although not significant, twenty-three participants had an abnormal sinus rhythm during exercise. Fifteen out of those twenty-three participants displayed ECG changes during testing, again, not significant. The review of literature reveals that more research needs to be conducted, testing the effects of music on a diseased population during exercise. There is data available about the effects of music during exercise on a healthy population, and about the effects of music on a diseased population during rest. It is possible that with modifications to the procedures, the population, and the measurements, this study may produce alternative results if repeated. It is concluded that further research needs to be conducted to determine if music had any effect on patients enrolled in a cardiac rehabilitation program.

Islam, Nehalul. Assessment and comparison of the stress experienced by international and American students at the University of North Texas, 2001. M.S., University of North Texas (Chwee Lye Chng). (50pp $5.00) HE 686

There were two purposes of the current study: (1) to evaluate if the East Asian Student Stress Inventory could be used to assess the stress experienced by international and American students at the University of North Texas, and (2) to determine if the inventory could discriminate between the two groups on the basis of the stress assessment. A sample of international (n=205) and American (n=216) graduate and undergraduate students completed the inventory. Results indicated that the EASSI could be used to assess the stress experienced by international and American students at the University of North Texas, (Chwee Lye Chng). (50pp $5.00) HE 686

Sayers, Laura K. Parents’ perceptions of a home-based infant and toddler adapted physical education model, 1999. Ph.D., University of New Orleans (Wilma Longstreet and Jo Cowden). (244pp $15.00) HE 684

The University of New Orleans pediatric strength intervention (PSI) model, for young children with Down syndrome and their families, presents a unique approach to adapted physical education and early intervention. Individualized interventions were designed by researchers with input from parents, but were implemented four days a week for eight weeks in the home by parents. The purpose of this research was two-fold: (a) to apply a participatory action research design to collect the parents’ perceptions of their participation in the delivery of services so that these services may be improved, and (b) to engage in a primary research effort to describe the only existing infant and toddler adapted physical education program which could be used as a reference by other programs around the nation. The 22 participants represented 11 family units who had participated in the UNO PSI. The mothers identified themselves as the primary interventionists, based on how often and how long they implemented the child’s PSI. The fathers were referred to as supporting interventionists. Individual semi-structured interviews were conducted in the participants’ homes. Interviewees performed member checks of the interview transcripts. Data analysis consisted of systematic methods of content analysis according to the six research questions, which included comparisons of responses among primary interventionists, among supporting interventionists, across all interventionists, within family units, and across family units. The participants spoke of programmatic aspects related to the unique design and structure of the program, characteristics of their home-based implementation of the program, and outcomes of their participation in the UNO PSI. The parents were very positive about their participation in the program. Participants’ responses indicated that their children's motor development improved during intervention. In addition, the parents experienced feelings of empowerment through their active participation in the interventions. Some parents felt that there could be more organization at specifically indicated times. Some parents suggested a need for better communication between their physical therapists and the UNO researchers. The participants’ recommendations for improving the program were analyzed by the action researcher based on the practicality of implementing the suggestions at UNO, in another program such as the PSI, and with all children and families. The researcher offered guidelines for future early intervention programs and made recommendations for further study.

Schloman, Barbara F. Patterns in health education doctoral research: an analysis of dissertation abstracts and publication record, 1998. Ph.D., Kent State University (T. Jean Byrne). (219pp $15.00) HE 689
The dissertation is a required element of doctoral programs and is intended to provide a guided research experience for the author. It is expected to be original inquiry that can make a distinctive contribution to the field. This study examined elements of doctoral preparation in health education, and the relationship of those factors to the establishment of careers that contribute to strengthening the knowledge base of the field. Specifically, it analyzed the relationship between doctoral program characteristics (degree type, Carnegie institution type, disciplinary orientation), dissertation characteristics (topical area, research focus, research orientation, relative rigor), and professional research activity (publication record, publication of dissertation work). Also, changes in these variables by time period (1987-91, 1992-96) were evaluated. Two theoretical frameworks guided this study. Professional socialization provided the outline for investigating the factors of doctoral program preparation which influenced graduates from doctoral programs to continue as active researchers within the field. Diffusion of innovation was used to review the extent to which dissertation authors chose topics that addressed established health priority areas and disseminated their dissertation work through the journal literature. The study analyzed all abstracts of health education dissertations completed at U.S. institutions from 1987 through 1996. A total of 1007 were reviewed. The chi square statistic was used to examine the relationship between variables. Hypotheses found to be significant included those comparing differences by time period for dissertation characteristics and publication record. These findings suggested that dissertation authors in health education have increasingly chosen to address national health priorities and to conduct research that views health issues from a sociocological, rather than individual, perspective. The percentage of authors who had published decreased, indicating more attention to professional socialization is needed within doctoral programs. Based on the results, the development of health education as a field of study does seem to be progressing. Suggestions for future research include using qualitative methods to explore more fully the professional socialization process for doctoral students in health education. Also, a tighter format for the preparation of abstracts would provide potential users of this literature better information upon which to decide whether to pursue obtaining the dissertation full-text.


This inquiry explores student attitudes toward physical and health education curriculum, when they are taught with a collaborative approach. The inquiry takes place in a 7th grade health class and is centered around a six week health curriculum that focuses on making clear connections between what is being taught in health class and activities being performed in physical education class. It investigates whether student attitudes toward participating in physical education improve when the importance of physical activity is explained in a health curriculum that emphasizes the benefits of a healthy and active lifestyle. Forms of data collection include: observations, interviews, a health survey, and student work. A full descriptive narrative and reflections are included.

RECREATION AND LEISURE

Campitelli, Michael A. Why students at Eastern Washington University choose to participate or not in intramural sports activities while at EWU, 2000. M.S., Eastern Washington University (Alan Coelho). (47pp 1f $5.00) RC 544

The purpose of this study is to determine the major motivating factors as to why students choose to play or not to play in intramural sports at EWU. Subjects for the survey were chosen at random from the 1500 students (approximate) living in the EWU Residential Hall system. Four hundred students, approximately 5% of the EWU student population, were sent the survey through the campus mail service. The subjects received the survey on or around December 1, 1999 and were asked to return it by December 10, 1999. One hundred three responses were collected; 68 of the respondents were female and 35 were male. Analysis of the collected data verified what previous surveys had determined: that students who chose to participate in intramural activities did so for the same basic reasons, love of sports and competition, social interaction benefits, and the desire to remain physically active. Those respondents who chose not to play primarily cited lack of time, lack of information about the programs, and lack of interest in sport related activities. The data strongly suggest that intramural sport activities are very high on a student’s list when searching for things to do while at EWU. The hope is that, with additional research into the recruiting and retention benefits of intramural programs, colleges and universities will better understand the relationship of recreational programs and student satisfaction.


My dissertation analyzes the relationship between work and leisure cultures in eighteenth- and nineteenth-century England. I trace the origins of the contemporary Anglo-American preoccupation with work to the Evangelical response to the French and Industrial Revolutions. Specifically, I focus on the eighteenth-century controversy
surrounding leisure taken up by the Rational Dissenters, and, in the nineteenth century, the Sabbatarian struggle to replace the rough and often bloody leisure activity of the urban poor with a stricter religious observance. I argue that nineteenth-century debates on leisure were radically different from the Dissenters’ liberal ideology and practice. Responding to the crisis of the post-revolutionary era and the effects of the Industrial Revolution, Evangelical Sabbatarianism helped form a strict leisure culture that sought to replace working class recreation with family-oriented, “respectable” religious practice. This culture was shaped by the introduction of the idea of work, as a model for self-improvement and progress, into the language of salvation. In the conclusion of my dissertation I argue that Sabbatarianism also shaped a new work ethic by infusing Victorian ideals of work with religious meaning. Hard work became a means of salvation and a measurement of righteousness and respectability. This attempt to redraw the Victorian social map did not go uncontested, and, as a result, London saw not only violent protests from radical liberals such as Henry Mayhew and John Stuart Mill, but also the worst riots of the post-Chartist era. Nonetheless, the new Evangelical emphasis on individual salvation influenced many secular and religious customs. While the specifically religious aspect of this rationale disappeared, our legacy from these debates has been a self-centered, work-oriented approach to leisure.

Zangari, Mary-Eve C. Family members’ experiences of saturation, bonding, and leisure: a feminist perspective, 1997. Ph.D., Virginia Polytechnic Institute & State University (Scott Johnson). (199pp 3f $15.00) RC 546

Theoretical tensions between theories of saturation, bonding, and leisure were explored from feminist perspectives. Saturation, defined by Gergen as a state of relational overload, may cause lack of connection between family members. Leisure scholars suggest that bonding occurs during leisure, and a feminist perspective emphasizes that leisure includes conflict and inequality in families. Participants were primarily White, and all were upper middle class married couples with children aged 6 to 12. Individual and family interviews were held with parents and children. Data was analyzed qualitatively, according to Strauss and Corbin’s (1990) grounded theory procedures. Saturation, as a metaphor, does not capture the dynamic nature of how people grapple with time use. Being saturated reflects being filled up, but the experience described by participants may be closer to feeling drained, and more useful may be a concept that attends to both. Parents demonstrated four kinds of orientations to saturation: resistant, reformed, absorbent, and saturated. The persons who defined their experience as saturated were two men, both breadwinners with homemaker wives. Women took time-stress for granted, and were the main organizers and monitors of family leisure. Technology did not seem to add to time-stress, but TV in most households was restricted to weekends. Parents did not clearly associate bonding with leisure time. Bonding was defined as building connections and trust, showing warmth and caring, and being involved in each other’s lives. While bonding required attentiveness, leisure was an event where parents were free of responsibility for others. Parents discussed ideal vs. actual employment arrangements. Female homemakers were interested not in leisure, but in finding part-time work. Male breadwinners were wedded to their provider roles. Many adults would make changes in their employment situations, but felt stymied by gendered workplace culture. Children could describe times they felt time pressured, but mostly were content, and asked for parents not to rush them from one activity to the next. Children’s leisure preferences were free time and family time, opposed to organized activities, chores, and TV.

PSYCHOLOGY

Baltzell, Amy. Psychological factors and resources related to rowers’ coping in elite competition, 1999. Ed.D., Boston University (Leonard Zaichkowsky). (221pp 3f $15.00) PSY 2171

There has been little coping research conducted in the field of sport psychology. The purpose of this study was to further the understanding of coping in elite sport by determining the predictive powers of coping based on the independent variables, hardiness, optimism, social support, psychological well-being and athletic coping skills. The relationships were established by administering the brief COPE (Carver, 1989), the Personal Views Survey-II (Maddi, 1994), the Life Orientation Test-Revised (Carver, 1996), the Social Support Inventory (Nowack, 1990), the Psychological Well-Being Inventory (Nowack, 1990), and the Athletic Coping Skills Inventory-28 (Smith, Schultz, Smoll & Pateck, 1995), respectively. In addition, in-depth interviews were conducted regarding coping experiences related to competitive pressure and expectations to perform. Specifically, the subjects were asked to discuss their most and least effective coping experience in elite sport. Study participants were 61 contenders for, or members of, the U.S. national rowing and/or Olympic teams. 61 elite rowers completed the questionnaires and 13 US national rowing team members participated in the in-depth interview process. The results indicated that 64% of the coping variance was explained by the three independent variables: goal setting and mental preparation, social support of friends, and psychological well-being. There were also distinct differences in the coping categories used in the most and least effective coping experiences. Before the most effective scenarios, the rowers reported high levels of self-efficacy (100%) and a lack of fear (92%). In
contrast, before the least effective scenario they reported low levels of self-efficacy (100%) and high levels of worry regarding the expectations of others (69%). During the most effective scenario, the athletes reported in the moment (38%) and focused on being relaxed (31%). In contrast, in the least effective scenario they worried about losing (54%) and mentally gave up (46%). Overall, the qualitative data indicate that it is possible for elite rowers to develop the habit of effectively coping with competitive pressure and expectations to perform, which is contingent on their willingness to reflect and learn from their elite rowing experiences.

Boswell, Kasmin J. A review of the literature on self-efficacy and selected constructs: implications for academic success in regard to African American athletes, 1999. M.A., California State University, Northridge (Barbara Rhodes). (232pp 3f $15.00) PSY 2174

A presenting problem at many institutions of higher learning is the failure of African American athletes to achieve academically. This is a complex problem involving many factors related to the socioeconomic status shared by many African American males prior to entering college. However, once Black males are recruited to the college campus based on their athletic potential, too often the college is not effectively responsive to their academic needs. In a monocultural academic environment, the African American male athlete too often flounders and fails. Too many have their dreams of making it as professional athletes shattered. This loss is compounded when they lose the opportunity to create a lifestyle based on having successfully achieved a college degree. This thesis explores interventions based on the theory of self-efficacy, which represents one core aspect of Bandura’s (1977, 1997) social cognitive theory. These interventions provide a basis for simultaneously bolstering athletic and academic achievement. Self-efficacy theory speaks to personal action control or agency. Self efficacy, coupled with other essential supports, which include lazarus theory, internal/external motivation, and rumination theory, has been found to provide a nurturing environment for individuals (Adler, Pritchard, and Ansbacher, 1998, 1968). Adopting a paradigm based on these theories can potentially result in institutions of higher education creating a theoretical home for their student athletes, based on continuous collaboration between all university support services. This, in turn, has potential to increase graduation rates through empowering student athletes to play an active role in their academic endeavors.

Cleland, Sharon M. The mediating effect of goal setting on exercise efficacy of efficacious older adults, 2001. M.S., Ball State University (Valerie Wayda). (121pp 2f $10.00) PSY 2172

The purpose of this study was to ascertain the mediating effect of two types of goal-setting conditions (self-set and assigned-set goals) on exercise intensity, exercise efficacy, and perceived physical ability of efficacious older adults participating in a fitness program. In addition, this study examined the extent to which the four sources of self-efficacy influenced walking self-efficacy and perceived physical ability. Sixteen older adults, who were participating in a fitness program, were randomly assigned to either the self-set or assigned-set goal condition. The self-set group selected an exercise intensity (i.e., target heart rate range) each week prior to the walking bout, while the assigned-set group were designated an exercise intensity (i.e., target heart rate range) each week before their walking session. The same walking duration was implemented for both goal groups throughout the eight-week goal-setting program. Heart rate monitors were used to collect information on exercise intensity. In week one, walking self-efficacy (WSE), exercise intensity, and perceived physical ability (PPA) were collected. For weeks two through seven, WSE, exercise intensity, and goal setting post-questionnaire (only for the assigned group) were collected. In week eight, WSE, PPA, exercise intensity, and sources of self-efficacy were collected. The results revealed that goal condition had no significant effect on exercise intensity, perceived physical ability, and walking self-efficacy. However, this study assisted participants in becoming more aware of their heart rate (exercise intensity) by observing their heart rate monitors.


This study was conducted to explore collegiate athletes’ (N=74) perceptions of psychological adjustment to sport disengagement and to develop an initial instrument entitled the Sport Disengagement Questionnaire (SDQ) to assess these adjustments. Overall, five of the six hypothesized factors comprising the SDQ emerged in the principal components analysis (i.e. health/fitness, social dynamics, personal investment, achievement satisfaction, and career/future planning). Factor structure was found with three of the factors being robust. Athletic identity was the only hypothesized factor which failed to emerge. The results of this study indicated that these participants generally did not perceive themselves to be at risk for disengagement problems. In addition, no differences were found in the participants’ perceptions of adjustment to sport disengagement with respect to gender, race, and sport classification. Overall, the development of the SDQ provided an important initial step in developing a questionnaire with reasonably good factor structure and internal consistency, as well as having scientific and applied utility.
The arousal-performance relationship remains a perennial enigma to sport psychology. This study, exploratory in nature, was an attempt to understand the multidimensional complexities of the arousal-performance relationship utilizing the systematic conceptual framework and phenomenological approach of Reversal Theory. Competitive mountain bike racers \( N=25 \) were tracked through the 1996 Utah Cannondale Cup racing season. Quantitative group (averages across the season and each race as a unit of analysis) and intra-individual (ipsative \( z \) scores for the 1-lag autocorrelation) analyses were used to examine these high-risk sport athletes’ felt arousal (perceived physiological arousal), emotions, and cognitions pre-competition and during-competition for objective, subjective, and best and worst performances. At each race, prior to competition, the Sport Grid, Telic State Measure (TSM), and Stress Arousal Check List (SACL) were used to measure emotions, cognitions, and expectations. The during-competition emotions and cognitions were measured post-competition, followed by a brief interview. Reversals were identified by changes in arousal, thoughts, and feelings pre-competition (Sport Grid) to during competition (Post-competition Check List). The majority of these racers were high-sensation-seeking paratelic (86%) who sought high positive arousal, excitement, and the challenge of competition; took racing seriously; and were organized and prepared. Prior to competition, 89% of these racers were in a paratelic state, experiencing high arousal, positive thoughts, and pleasant feelings. Few were telic, with 11% experiencing high arousal, negative thoughts, and unpleasant feelings pre-competition. Of those who were telic, 47% reversed to experience high positive arousal, thoughts, and feelings during competition. Averaged results were better predictors of performance than intra-individual race analyses. Pre-competition psychological states were better predictors of objective performance. Arousal, thoughts, and feelings were the most important predictors. During competition, psychological states were better predictors of subjective performance, with arousal and thoughts as the most important predictors. Preferred arousal did not statistically differ from actual performance (tension stress) to affect performance. No differences were found between objective best and worst races. However, subjective best performance arousal, thoughts, and feelings did differ significantly from worst performance.

Goodpaster, Stacee. *Perceptions of competence and control as predictors of athletes’ interpretations of parental involvement in gymnastics*, 2001. M.S., Purdue University (Alan L. Smith). (88pp 1f $5.00) PSY 2166

Understanding the psychological impact of parental involvement on youths is critical to providing an enjoyable and developmentally appropriate sport experience. Previous research shows that young athletes identify parents as sources of encouragement and positive affect (Babkes & Weiss, 1999; Brustad, 1988; Scanlan & Lewthwaite, 1988), but unfortunately also as sources of pressure and negative affect (Hellstedt, 1990; Scanlan & Lewthwaite, 1984; Scanlan & Lewthwaite, 1988). What explains these vastly different perceptions of parent involvement? In an effort to answer this question, this study examined perceptions of competence and perceptions of control as predictors of perceived parental involvement and affective responses in the gymnastics setting. It was hypothesized that perceived competence and internal control would positively relate to perceived parental encouragement and sport enjoyment, and negatively correlate with perceived parental pressure and competitive anxiety. External control and unknown control, on the other hand, would positively relate to perceived parental pressure and competitive anxiety, and negatively correlate with perceived parental encouragement and sport enjoyment. Perceived competence and control were hypothesized to have no relationship to perceived parental involvement. One hundred and thirty-eight female gymnasts, USA Gymnastics levels 4 through Elite (ages 12 to 14), completed a questionnaire tapping perceived control, perceived competence, perceptions of parental encouragement, pressure, and involvement, as well as competitive anxiety, and sport enjoyment. Multivariate multiple regression analysis revealed that gymnasts with higher perceptions of gymnastics competence and internal control, and lower external control and unknown control, reported higher levels of enjoyment, higher perceptions of father involvement, and lower perceptions of maternal pressure and anxiety. These findings highlight the importance of perceptions of competence and control in the parent-child relationship in sport, and are discussed relative to their theoretical and practical implications.

Guest, Shannon M. *The influence of dispositional goal orientation, perceptions of the motivational climate, and scholarship level on sport commitment in elite level athletes*, 1998. Ph.D., University of Iowa (Dawn E. Stephens). (215pp 3f $15.00) PSY 2161

This study examined the influence of dispositional goal orientation, perceptions of the motivational climate, and scholarship level on sport commitment in elite level athletes. A five-part questionnaire was utilized to measure the athlete’s sport commitment, dispositional goal orientation, perceptions of the motivational climate, and perceptions of competence, as well as to gather demographic information. Subjects were 226 male and female scholarship and non-scholarship athletes from a large Midwestern university who were participants on a Division I NCAA intercollegiate athletic team. Principal components factor...
analysis revealed that all three questionnaires had acceptable internal reliability. A MANOVA revealed that female athletes were higher on measures of task orientation than their male counterparts, while male athletes were higher on measures of ego orientation than female athletes. In addition, male athletes tended to view their athletic environment as more mastery focused. Hierarchical multiple regression analyses revealed that perceptions of the motivational climate, primarily a mastery climate, emerged as the most significant predictor of commitment/enjoyment, personal investment, and social opportunities, and were negatively related to educational costs for both male and female athletes. In addition, dispositional goal orientation (specifically ego orientation) was a significant predictor of recognition opportunities both for male and female athletes. A multiple regression analysis revealed that four newly added variables did not emerge as significant predictors of commitment and enjoyment in male athletes. In contrast, the four new variables did increase the percent of variance accounted for in commitment/enjoyment in female athletes, and three of the four variables emerged as significant predictors of commitment and enjoyment. A MANOVA indicated that individuals receiving either a full scholarship or a partial scholarship were higher on measures of educational costs than individuals with no scholarship. In addition, individuals receiving a full scholarship were higher on measures of educational costs than individuals receiving partial aid. Finally, a discriminant function analysis revealed that commitment/enjoyment and social constraints and obligations were important variables in discriminating among the three groups of female athletes. The MANOVA for male athletes was non-significant.

Johnson, Scott R. *The effects on extracurricular participation of academic achievement, self-concept, and locus of control among high school students*, 2000. Ed.D., West Virginia University (Dana D. Brooks). (224pp 3f $15.00) PSY 2169

The purpose of this investigation was to examine the effects on extracurricular participation (i.e., athletic participation) of academic achievement, self-concept, and locus of control among high school students. Participants included 6,698 high school students from the National Education Longitudinal Study: 1988 (NELS:88) First- and Second-Follow-Up data collection phases. These individuals participated in extracurricular activities during the tenth and/or twelfth grade. A binomial logistic regression model estimated the effects of: 1) gender; 2) socioeconomic status (SES); 3) locus of control; 4) self-concept; 5) school location; 6) school's region; 7) tenth grade participation level (i.e., PART10); 8) reading and mathematics composite score (readmath); and 9) ethnicity (i.e., race) on twelfth grade extracurricular participation. Results indicated all of the explanatory variables, except locus of control, were significantly related to an individual's extracurricular participation level during the twelfth grade. Future research investigations utilizing NELS:88 to examine extracurricular participation are discussed.

Lochbaum, Marc R. *Affective and cognitive performance due to exercise training: an examination of individual difference variables*, 1998. Ph.D., Arizona State University (Daniel M. Landers). (219pp 3f $15.00) PSY 2162

Seraganian (1992) stated that future research should search for factors that predispose a subset of the population to benefit from aerobic exercise or activities. To accomplish Seraganian's suggestion, this investigation extended the examination of moderator variables, exercise training history, and resting EEG asymmetry, that have received research attention in explaining the exercise-affect and exercise-cognitive performance relationship, and by uniquely investigating the potential impact of personality dispositions. To examine differences in affective responding due to differences in exercise training history, Solomon's opponent-process theory of acquired motivation was examined. As Solomon's theory has received recent attention, Davidson's framework, that individuals are predisposed to react with approach- and withdrawal-related emotions in response to an emotion-eliciting stimulus, has received research attention. In similar manner, exercise status and Davidson's framework were extended to the exercise-cognitive performance relationship. This investigation uniquely examined the potential impact of personality dispositions, extraversion, neuroticism, and openness in relation to the affect and cognitive performance. Participants were 53 right-handed, volunteer, university students (28 active: 15 male, 13 female; 25 inactive: 13 men, 12 women). Participants' maximal oxygen consumption was determined. On the following test days, participants exercised at 55% and 70% of their maximal capacity, for 30 min, and completed a sit-and-read condition with the order determined by random blocked assignment. For each of these three sessions, EEG, positive affect (PA), negative affect (NA), state anxiety (SA), and cognitive performance (CP) were collected. At time 0 (immediately prior to intervention), EEG, PA, NA, SA, and CP were collected. During the actual intervention, PA, NA, and SA were collected at 5, 15, and 25 minutes after the intervention had begun. Immediately after the termination of the intervention, EEG, PA, NA, and SA were collected. Finally, at 10 and 20 minutes after the intervention was terminated, EEG, PA, NA, and SA were collected. Results for anxiety in both the 70% and 55% conditions supported Solomon's predictions, in that inactive participants reported greater levels of SA during the exercise conditions compared to the active participants, whereas active participants reported lesser amounts of SA post-exercise compared to the inactive participants. In addition, supporting Solomon's predictions concerning intensity differences, SA overall across both participant groups was greater in...
the 70% exercise condition compared to the 55% exercise condition. Solomon’s predictions for NA were influenced by neuroticism. Close examination of the neuroticism-negative affect relationship demonstrated that, regardless of exercise status, highly neurotic participants reported significantly greater NA during both exercise conditions compared to participants who scored low on the neurotic personality disposition. Resting frontal EEG asymmetry failed to predict any unique variance over and above the unique variance predicted by the PA, NA, and SA baseline values in the 70% condition. For the 55% exercise condition, resting frontal EEG asymmetry significantly predicted 5.1% and 4.2% of post-exercise NA, over and above the unique variance predicted by the NA baseline value, immediately and 10 min post-exercise, respectively. Results for the cognitive performance indicated that the “openness personality dimension” was a strong predictor of cognitive performance. In fact, when entered into a regression equation, openness accounted for 16.0% of unique variance in cognitive performance, while exercise training history accounted for 5.0% of variance.

Maltbey, Jamie M. The influence of the coaches’ expectations on the goal setting of Division I student-athletes. 2001. M.A., Ball State University (Mary E. Van Dyke). (59pp 1f $5.00) PSY 2173

The purposes of this study are to identify what type of goals the Division I student-athletes set, how student-athletes assess their goals, and how coaches’ expectations influence the goals that the student-athletes set for themselves. The eight institutions offering both men’s and women’s swimming and men’s and women’s basketball within the Mid-American Conference were selected for this study. The participants of this study completed a survey in which they indicated what type of goals they set, how they assess their goals, and who is the most influential on the goals they set. The data was analyzed using descriptive research. The study indicated that student-athletes set performance, process, and outcome goals to achieve their desired outcome. The pressures that student-athletes placed on themselves, as well as their coaches’ expectations, influenced the goals they set. This study was conducted to recognize the goal-setting process of Division I student-athletes and the influences that have an effect on their goals.

Mills, Brett D. Sport confidence and goal orientation in high school and college track athletes, 1997. Ph.D., University of Iowa (Dawn E. Stephens). (248pp 3f $15.00) PSY 2177

The purpose of the study was to determine, under conditions where perceived chance of failure was fifty percent, whether: 1) individuals high in trait sport confidence (TSC) who are task-oriented scored higher on failure-induced state sport confidence (FISS) than ego-oriented individuals who were also high in trait sport confidence; 2) individuals grouped by their goal orientation (i.e., high-task/low-ego [HTLE], low-task/high-ego [HTHE], low-task/low-ego [LTLE], high-task/high-ego [HTHE]) differed in regard to TSC, FISS, and the resulting difference score; 3) motivational and demographic variables were of importance in discriminating between those subjects who scored high on task/low on ego and those low on task/high on ego; 4) motivational and demographic variables were significant predictors of each of the following: TSC, FISS, and the resulting difference score; 5) motivational and demographic variables were of importance in discriminating between those subjects who scored high versus those who scored low in TSC; and 6) motivational and demographic variables were of importance in discriminating between those subjects who scored high versus those who scored low in FISS.

Subjects (n=319) were high school and college track athletes. Research Questions (RQ) #1 found no statistically significant results. RQ #2 indicated that HTLE males were significantly higher in TSC than LTLE males and LTLE females for FISS, HTLE had significantly higher scores than LTLE and HTLE groups. HTLE females had significantly higher FISS than LTLE females. RQ #3 indicated that males who were HTLE scored higher on TSC and FISS than males who were LTLE and HTLE, and that LTLE males were older than males who were HTLE. RQ #4 indicated that task orientation emerged as a significant predictor of TSC for males. Both task orientation and age emerged as significant predictors of TSC for females. RQ #5 indicated that males and females high in TSC were more task oriented than males and females low in TSC. RQ #6 indicated that males and females high in FISS were more task-oriented than males and females low in FISS.


Fear of failure (FOF) is a construct that has been determined to result from an acceptance of social norms, and it has been suggested that this fear is more prevalent among females, particularly those participating in activities that are not considered gender appropriate. This study utilizes Conroy’s Performance Failure Appraisal Inventory (PFAI; 1999) to determine if the variables of gender, athletic participation, level of competition, and sport affiliation (team or individual) are related to a respondent’s FOF score. Results of both an ANOVA and MANOVA indicated a significant gender difference in FOF scores, where females were greater in FOF than males. This difference suggests that females continue to internalize traditional social norms discouraging achievement in physicality. Further analysis revealed no significant differences in FOF as a function of athletic status, level of athletic competition, or sport. The lack of a significant difference in these areas
suggests that there may be limits to the psychological benefits of sport. Access to this information may warrant some necessary changes in coaching and educating strategies, to help reduce this fear.

Toskovic, Nebojsa N. Cardiovascular and metabolic responses and alterations in selected measures of mood with a single bout of dynamic Tae Kwon Do exercise, 2000. Ph.D., Auburn University (Daniel Blessing). (243pp 3f $15.00) PSY 2170

Experiment I investigated and compared the acute cardiovascular and metabolic effects elicited by novice and experienced male and female participants during a single bout of dynamic Tae Kwon Do exercise. Subjects, twenty-eight males and females (aged 19-40), were assigned to one of the four following groups: Tae Kwon Do experienced and trained men, Tae Kwon Do experienced and trained women, novice Tae Kwon Do men, and novice Tae Kwon Do women. The results of this investigation indicate that this form of exercise can be performed for an extended period of 20 minutes. All four groups achieved the recommended stimulus for effective initiation of cardiovascular adaptations and conditioning. Data in this study also indicates a high caloric expenditure for this mode of exercise, which suggests that dynamic Tae Kwon Do is an exercise modality that can be appropriately prescribed for enhancing weight control and fat weight loss. A stepwise multiple regression analysis indicated that weight, VO_{2max}/flexibility, and force production with kicks were all significant predictors of the energy cost of dynamic Tae Kwon Do exercise. Experiment II examined the changes in affect after normal college-age students participated in a single bout of dynamic Tae Kwon Do exercise. The study investigated and compared the acute alterations in selected measures of mood profile in twenty male and female novice Tae Kwon Do practitioners, while evaluating whether dynamic Tae Kwon Do practice is an appropriate exercise modality for enhancing six psychological state dimensions: vigor, anxiety, depression, anger, fatigue, and confusion. Twenty novice male and female Tae Kwon Do practitioners completed the Profile of Mood States prior to and immediately following, a 75-minute session of dynamic Tae Kwon Do. An additional twenty male and female students, enrolled in the regular lecture class, served as a control group. Following dynamic Tae Kwon Do exercise, a significant decrease in scores on Tension, Depression, Anger, Fatigue, and Confusion, and a significant increase in scores on Vigor relative to control, were found. Global mood was also significantly improved after the dynamic Tae Kwon Do session. This study indicated that acute Tae Kwon Do exercise may evoke positive changes in affect, and that prolonged exercise is not necessary to produce beneficial mood alterations. It also provides empirical support for the suggestion that Tae Kwon Do may be of particular benefit to women.

**MOTOR LEARNING AND CONTROL**

Beilby, Kristine M. Predictors of falls in elderly home care clients residing in assisted living facilities, 1998. M.P.H., University of Minnesota (Adam Atherly). (228pp 3f $15.00) PSY 2158

The purpose of the study was to determine predictors of falls, in these settings, in order to create a research based fall risk assessment tool, and to pro-actively prevent falls. Falls were prospectively tracked by incident report and chart review. Information on independent variables on 513 clients, including 186 fallers, was gleaned from chart review. Statistical analysis of these data with chi-square and Discriminant Analysis (DA) was done to determine differences between fallers and non-fallers, injured and non-injured fallers, and subjects with smaller and greater numbers of falls. Chi-square analysis showed the following independent variables to be significant at an alpha level of .05. Associated with falls were: age, neuromuscular diagnosis, increase in medications, dependent ambulation, use of an assistive device, dependence in personal cares, dependent toileting, and greater numbers of weeks in the study; with injury falls: age, female gender, morning hours, and not having a neuromuscular diagnosis; with greater numbers of falls per week: use of a walking device and fewer weeks in the study. From the DAs, the following variables were explanatory, using the soft rule. Associated with falls were: diabetes, increase in medications, dependence in ambulation, use of a walking device, dependence in personal cares, and not taking BP/diuretic medications; with injury falls: female gender, morning hours, and not having a neuromuscular diagnosis; with greater numbers of falls: use of an assistive device and dependence in ambulation. The DAs were significant for the interactive effect of combined variables, but none did a good job of classifying the dependent variables into discrete groups. The study demonstrated that persons with more dependencies are more at risk for falls, and that the subject is very complex and influenced by many diverse individualized variables. Since persons with dependencies (personal cares, ambulation, toileting) were demonstrated to be at risk for falls, administrators and home care providers are encouraged to package services to these persons in such a way as to encourage their use and to overcome clients’ cost-related reluctance to call for assistance, as with transfers and toileting. Creative service packaging and delivery should promote independence and choice, without compromising safety of this vulnerable population.

Brovender, Samuel J. Effectiveness of an abdominal training protocol on an unstable surface versus a stable surface, 2001. M.Sc., University of British Columbia (Timothy Inglis). (75pp 1f $5.00) PSY 2165
Control of the trunk musculature is essential for maintaining stability of the lumbar spine. Training the abdominal mechanisms on a stable surface is a well-established intervention. The clinical use of unstable surfaces when training the transversus abdominis is common; however, little is known regarding the effectiveness, or added value, of an unstable environment. The purpose of this study was to evaluate the clinical and subjective levels of improvement of the deep trunk muscles, following training, on an unstable versus stable surface under an abdominal pre-setting condition. Volunteer subjects (n=25, 10 males and 15 females) from the Vancouver Dolphins Swim Club, between the ages of 14 and 19 years were randomly assigned into one of two groups: a group instructed on abdominal setting and then performing exercises on an unstable surface, and a second group, also instructed on abdominal setting but performing the same exercises on a stable surface. Three commonly used trunk stability exercises were assigned to each subject and were progressed one per week over a period of six weeks. All subjects in the study were taught the proper abdominal setting action prior to beginning the study. Subjects met once per week with an instructor, to ensure that proper exercise technique was maintained, as well as to receive proper exercise progressions. Three testing sessions were conducted over the course of the study, at the zero-, three-, and six-week marks. Baseline measures were taken using the Stabilizer™ pressure biofeedback unit and the Sahrmann testing protocol. A questionnaire and a logbook with follow-up data were also collected at the three and six week testing sessions. Significant within-group differences were seen in each of the two groups throughout the entire length of the study as the abdominal training progressed. Between-group differences were significant during the second half of the study, when adjusting for the three-week score, proving the unstable surface to be more effective than the stable surface as a measure on the Sahrmann scale. Training on an unstable surface will improve the activation of the abdominal mechanism more than training on a stable surface. With a baseline of neuromuscular activation of the abdominal mechanism more than training on a stable surface. Three commonly used trunk stability exercises were assigned to each subject and were progressed one per week over a period of six weeks. All subjects in the study were taught the proper abdominal setting action prior to beginning the study. Subjects met once per week with an instructor, to ensure that proper exercise technique was maintained, as well as to receive proper exercise progressions. Three testing sessions were conducted over the course of the study, at the zero-, three-, and six-week marks. Baseline measures were taken using the Stabilizer™ pressure biofeedback unit and the Sahrmann testing protocol. A questionnaire and a logbook with follow-up data were also collected at the three and six week testing sessions. Significant within-group differences were seen in each of the two groups throughout the entire length of the study as the abdominal training progressed. Between-group differences were significant during the second half of the study, when adjusting for the three-week score, proving the unstable surface to be more effective than the stable surface as a measure on the Sahrmann scale. Training on an unstable surface will improve the activation of the abdominal mechanism more than training on a stable surface. With a baseline of neuromuscular activation, following training on a stable surface progression to an unstable surface may result in even greater improvements. Subjective improvements in strength and power were noted upon analysis of questionnaires and log books, following a core training program.

Dollar, John E. Contextual interference in the motor domain: the effects of related and unrelated task practice, 1995. Ph.D., Texas A & M University (John M. Chevrette). (220pp 3f $15.00) PSY 2154

Practice is a critical element in the formation of a motor skill. Based on the nature or the characteristics of the skill, the type of practice schedule can affect different long-term and short-term skill outcomes. The purpose of this study was to investigate the influences of related and unrelated task practice on long-term retention of a motor skill practiced in conditions of high and low contextual interference. Seventy-five undergraduate volunteer students (41 males and 34 females) were recruited and selected for one of six task-practice schedules. Subjects then were assigned a practice group (Constant, Related, or Unrelated), under a high or low contextual interference practice condition, and began practicing a key-tapping task. Three groups experienced 4 blocks of 12 trials per block (48 trials) for minimum acquisition, and the other three groups experienced 16 blocks of 12 trials per block (192 trials) for extended acquisition. At the end of respective acquisition trials, all subjects were provided with a retention test for the criterion task that all subjects had experienced during acquisition. Retention test intervals were at 30 seconds following acquisition, 10 minutes following acquisition, and 24 hours after completion of acquisition trials. No significant effect for minimum related-task practice on long-term motor skill retention was determined from the statistical analyses. Although the related groups had the greatest group error for acquisition, the contextual interference (CI) effect was thought to have been confounded by a multiplicity of segmental fragmentation. No significant effect for extended related-task practice was determined. The unrelated groups produced more error for retention, but not enough to provide statistical significance. There were no significant effects of minimum or extended unrelated-task practice. These findings do not support the CI effects currently reported in the literature of motor learning. A secondary experiment is recommended, implementing the present design, but should incorporate a total movement time for skill acquisition and retention in place of the segmental times.


Although regular exercise is a known effective primary and secondary treatment for cardiovascular disease, cardiac rehabilitation program participation is low. The purpose of this cross-sectional, comparative survey was to investigate motivational factors related to exercise adherence (ExA) in patients who have experienced a cardiac event (Myocardial Infarction [MI], Percutaneous Transluminal Coronary Angioplasty [PTCA], or Coronary Artery Bypass Graft [CABG]). Variables examined included age, gender, exercise benefits and barriers, Locus of Control (LOC), Intrinsic Motivation, exercise program organization (hospital-based or independent), and the length of time since the cardiac event. A combination of Exercise Benefits and Barriers, Locus of Control Theory, and Cognitive Evaluation Theory served as a theoretical base. Participants were randomly selected from 8944
patients admitted to a central Illinois hospital between 1/1/95 and 4/30/97. Seventy-one women and 155 men, with an average age of 65.5 years, participated. The sample was grouped by time since the cardiac event, program type, and exercise behavior (exerciser or non-exerciser). Exercise adherence was defined as the average of the Z-score of exercise frequency, duration, and intensity. Statistical analyses included correlation, one-way and two-way ANOVAs, and Multiple Regression. No relationship was found between ExA and gender, powerful others, locus of control, exercise program organization, or cardiac event temporal distance. Age, chance LOC, and the Multidimensional Health LOC total showed mixed ExA relationships. All remaining variables were significantly related to ExA. All exercise groups other than those in a hospital-based Phase III program for ≤ six months saw more exercise benefits than the non-exercisers. All exercise groups saw fewer exercise barriers when compared to the non-exercisers. All exercisers but those in a hospital-based Phase II program for ≥ six weeks expressed a higher internal locus of control (ILC) than non-exercisers. Exercisers had more interest, perceived competence, increased effort, and lower tension than non-exercisers. Results suggest that older patients with the perception of increased exercise benefits, fewer exercise barriers, an ILC, and, particularly, more intrinsic motivation, exercised longer. This suggests that CET theory, the basis of the intrinsic motivation concept, could be used to design a cardiac rehabilitation exercise program which has the potential of increasing cardiac rehabilitation ExA.

Hodges, Nicola J. The role of instructions and demonstrations in learning a coordination skill, 2001. Ph.D., University of British Columbia (Ian Franks). (217pp 31 $15.00) PSY 2168

Four experiments were conducted to examine how pre-practice information affected the early stage of acquisition when the motor skill was not an existing part of the learner’s movement repertoire. More specifically, the experiments examined why instruction concerning the correct way to perform a motor skill has a negative influence on acquisition, and, subsequently, under what conditions it is useful. In all experiments, participants practiced a difficult, bimanual coordination pattern, which resulted in circular shapes on a monitor. In Experiment I, information prior to and during acquisition was manipulated to examine whether instructions benefited learning when feedback informed as to how they were implemented. No support was found for this prediction, somewhat due to the complexity of the feedback. When only circle feedback was provided, pre-practice information hindered acquisition, which supported findings from an initial investigation. In the second experiment, focus of attention was manipulated via the instructions to examine whether attention mediated the instructional effects. It was predicted that instructions directing attention onto the effects of the action would facilitate learning. This hypothesis was generally supported; however, non-instructed participants performed as well as an external focus group, and all attention-directing instructions decreased the negative effects of feedback withdrawal. The final experiments were designed to examine whether instructions that built upon existing behaviors would facilitate acquisition when only a gradual replacement of an existing behavior was required (Experiment 4), as compared to a qualitative change (Experiment 3). In Experiment 3, only participants biased to in- and anti-phase movements were studied (bi-stable). In Experiment 4, participants biased to patterns other than these (multi-stable) were examined. Instruction did not benefit learning, irrespective of initial bias. Instructions that built upon in-phase movements were detrimental to acquisition. More permanent changes to the underlying dynamics were manifest in post-practice scanning tasks for the non-instructed participants only. As a result of these studies, it was concluded that movement demonstrations and instructions conveyed little useful information in the early stage of acquisition, if information regarding goal attainment was available. Instructions can hinder the break from pre-practice patterns, but may possibly help refine the movement at a later stage.

Krugger, Tammy Marie. An exploratory investigation into the effects of Tai Chi exercise on balance and gait performance for hip-replacement patients, 2001. M.S., University of Memphis (Yuhua Li). (63pp 1f $5.00) PSY 2160

Previous research has recently shown that Tai Chi exercise is an effective, inexpensive way to improve balance, strength, and cardiovascular function for patients and the elderly. The purpose of this study was to investigate the effects of a 12-week Tai Chi exercise intervention on balance and gait performance for hip replacement patients. Twelve subjects participated in either Tai Chi exercise (n=6) or the control group (n=6). Results revealed no significant interaction between the groups and the test, but a significant group effect was revealed for backward single leg support percentage and normal gait velocity. The data in this study revealed a consistent pattern of improvement on all measures except speed for the Tai Chi group. Such an increase could possibly be explained by an increase in neuromuscular control due to the balance training with Tai Chi exercise, and a greater kinesthetic awareness. In addition, the results of self-report data on the balance confidence scales showed a significant interaction between the group and the test, indicating that the individuals engaged in Tai Chi exercise significantly increased their balance confidence level in post-intervention. However, the control subjects had no change in the comparison between pre- and post-test. There is a need for further investigation over a longer period of intervention, with a larger sample size and a randomized group assignment.
The purpose of the present study was to investigate the contextual interference (CI) effect on learning a soccer passing skill for beginners. Thirty-eight undergraduate and graduate students (Mean age=22.44yr., SD=2.89) from the University of Memphis were asked to use the inside foot to pass a soccer ball to a target located at three different distances: 11, 17, and 22 yards. Subjects were randomly assigned into Random (R) or Blocked (B) practice conditions, and then tested individually for immediate retention and 24-hr delayed retention on the same task experienced. During the retention sessions, subjects were further divided into two testing formats (R and B), resulting in four groups: Random-Random (R-R), Random-Blocked (R-B), Blocked Blocked (B-B) and Blocked-Random (B-R). A 2 (Practice condition: Random vs. Blocked) X 2 (Retention condition: Random vs. Blocked) X 3 (Distance: 11,17,22 yards) ANOVA based on performance score was used to examine the CI effect on immediate and 24-hr delayed retention performances. The results indicated a significant distance effect for both immediate and 24-hr delayed retention, F(2,68)=18.78, P<.05, and F(2,68)=17.94, P<.05, respectively. Tukey post hoc test indicated that the performance from the ll-yard distance was the best in both retentions, with the 17-yard distance being the second best. Importantly, while no other significance was found, a tendency was noticed that the retention performances on the medium distance (i.e.,17-yard) were the best for the R-R group, and the worst for the B-R group. This result was consistent with the theoretical predictions from the CI effect on motor skill acquisition in the literature. The issue of the practical applications of the CI effect is discussed.

Nordvall, Michael P. The influence of music on motor behavior and select physiological and psychological variables, 1995. M.S., Southern Connecticut State University (David Kemler). (117pp 2f $10.00) PSY 2157

This study examined the influence of various types of music on motor behavior and select physiological and psychological variables. Sixteen subjects, mean (±SD) age 19.6 ±1.7 years, voluntarily participated in this study. Subjects underwent measurement of resting metabolic rate (RMR) and participated in three experimental conditions selected to represent a fine motor task, and muscular and aerobic endurance tasks. The four music treatments were: (a) fast, (b) slow contemporary, (c) the subject’s music preference, and (d) white noise (control). A repeated measures ANCOVA and a MANOVA were used to determine differences in heart rate, mood states, and RMR. Level of significance was set at 0.05. Statistical significance was found between pre- and post-energetic mood state scores during RMR. All other comparisons for the dependent variables were nonsignificant.

O'Connor, Justen P. An investigation into the hierarchical nature of fundamental motor skill development, 2000. Ph.D., Royal Melbourne Institute of Technology (Jeff Walkley). (419pp 5f $25.00) PSY 2163

The development of motor skills has always been considered an integral part of a child’s development. The hierarchical nature of this development process has been well documented within growth and development literature. Commencing with the reflexes and reactions of infancy, and culminating in the performance of complex sport-specific skills, hierarchical theories of motor development propose that the more complicated movements are born out of those more simple movements that precede them. Cross sectional and limited longitudinal data have proposed sequences for the acquisition of a variety of motor skills within this continuum. Mature performance in fundamental motor skills is theorised to be an essential prerequisite to the learning of more complex motor skills found in many games and activities. It is argued that, without reaching competency in one stage of the motor skill continuum, children will limit their opportunities for success when exposed to the more complicated movements found in the next level. While these theories receive much support within the growth and development literature, there remains a need to further support the theories with scientific evidence. This research was undertaken in three phases. The first phase of the research was to investigate the proposed sequence of skill development outlined within the literature that culminated in the performance of the skip. From the literature, a hierarchical model of sequential physical and motor skill development was proposed for the skip. Physical measures were obtained for dynamic balance and bilateral coordination, while skill measures were obtained for the run, jump, hop and skip. Data were collected on a total of 195 subjects comprising 98 males and 97 females aged between five (62 months) and eleven years (138 months) (X=103 months, SD=18). Using Path Analysis techniques associated with causal modelling, the proposed model was analysed to determine how well the data fitted the model. Preliminary results revealed the data did not support the proposed model for the sequential progression of skill development culminating in the performance of the skip. The second phase was to develop assessment instruments to quantify the motor skill proficiency of sport-specific skills related to two fundamental motor skills, namely the overarm throw and two-hand side-arm strike. The criterion-referenced tests were comprised of twelve sport-specific skills believed to be hierarchically linked to the overarm throw and two-hand side-arm strike (tennis serve, badminton clear, lacrosse pass, baseball pitch, gridiron throw, javelin, volleyball serve, baseball strike, hockey drive, tennis forehand, golf swing and cricket cut-shot). Content validity was demonstrated through an eight-step process involving a repeated review by content area experts. Test-retest and inter-rater reliabilities met acceptable standards of reliability. Test
administration procedures were developed and used in this study. The final phase of this investigation was to determine if instruction in the two selected fundamental motor skills could improve performance in a number of related sport-specific skills. Subjects (N=195) from three schools comprised the three age groups analyzed within the study (X=149 months, SD=5; X=144 months, SD=4; X=106.7 months, SD=8.5). Within each school, subjects were assigned into three groups for comparison. The experimental group received 10 weeks of instruction in the two target fundamental motor skills (overarm throw and two-hand side-arm strike), the first control group received instruction in two non-related fundamental motor skills, and the second control group received the regular physical education program, with no targeted fundamental motor skill instruction. Data was treated separately within each school to avoid environmental effects. Following ten weeks of instruction in the two targeted fundamental motor skills, pre- and post-test analysis revealed a significant improvement in nine of the twelve related sport-specific skills tested. Results varied across schools, and there appeared to be a stronger relationship between those skills related to the200 move versus those related to the strike. Results generally support the notion that improvement in fundamental motor skill proficiency can produce significantly better performance in more complicated sport-specific skills, adding endorsement to hierarchical theories of motor skill development.

SOCIAL PSYCHOLOGY

DeVries, Steven N. Approval of aggressive acts in wrestling: individual and contextual variables, 1998. Ph.D., University of Iowa (Dawn E. Stephens). (242pp $15.00) PSY 2159

This study utilized moral and motivational constructs to examine relationships between college wrestlers’ approval of aggressive acts in wrestling and individual and contextual factors of the competitive wrestling setting. Subjects were wrestlers of fourteen NCAA Division III teams (N=221). The Wrestling Aggression Questionnaire (WAQ) was developed and used to assess approval of aggressive acts in the sport, perceptions of coach and teammate approval of aggressive acts, and likelihood to commit aggressive acts in competitive situations. Wrestlers were found to be less approving of action depicted in a WAQ scenario depicting controlling aggression than they were of two WAQ scenario actions representing scoring aggression. Stepwise multiple regression analysis revealed that wrestler approval of controlling aggression was predicted by perceptions of teammates’ and coaches’ approval of the aggressive act, likelihood to commit the act to win the match, and season win percentage. Wrestler approval of scoring aggression was predicted by perceptions of coach and teammate approval of the aggressive acts, and likelihood to commit aggressive acts to win, for retaliation, if the coach and teammates expected it. Discriminant function analysis identified coach and teammate approval of the aggressive act, and likelihood to commit the act to win, as factors distinguishing between subjects who reported high and low levels of wrestler approval of controlling aggression. Teammate approval of aggressive acts, and likelihood to commit aggressive acts if teammates expected it, were significant in discriminating between wrestlers who were high and low in approval of scoring aggression. Wrestlers reported that they were most likely to commit aggressive acts for pre-conventional motives, to win the match, and retaliation. Subjects indicated that they were less likely to commit aggressive acts for conventional motives of coach and teammate expectations. Results of this study suggest that wrestlers’ approval of aggression is related to moral atmosphere factors, including perceptions of teammate and coach approval of aggressive acts, and to moral motives for aggression in the sport.

Hollander, Daniel B. The effects of social support on men’s exercise-related cardiovascular reactivity, 2000. Ed.D., West Virginia University (Frank M. Perna). (142pp 2f $10.00) PSY 2176

A predictor of cardiovascular disease is increased heart rate and blood pressure reactivity to physical tasks. One psychological factor that is associated with a reduced cardiac (i.e., heart rate) and vascular (blood pressure) reactivity has been social support. Therefore, the purpose of this study was to examine the effects of social support on exercise-related CV reactivity. It was hypothesized that participants would demonstrate lower CVR in the Partner Present condition than in the Alone condition, and that level of intimacy would be related to CVR. Male participants (N=32) who were in an enduring romantic relationship (i.e., minimum duration of 2 months), who were not currently regular exercisers, and who had no health problems, were recruited for study participation. Participants completed questions that assessed their level of intimacy, exercise self-efficacy, and demographic characteristics. Participants were then asked to perform a symptom limited, maximal bicycle test, and scheduled for two sessions of submaximal exercise at a workload that elicited 60% of heart rate maximum as determined by the fitness assessment. Participants performed the two submaximal exercise bouts in either an Alone or Partner Present condition. A total of 28 participants were entered into the final analysis. Results were analyzed to examine the first hypothesis, that social support would buffer CVR to exercise, via a repeated measures ANOVA and correlations to examine the second hypothesis, that intimacy would be related to CVR. Results revealed no support for hypothesis one during baseline. However, some support for hypothesis one was revealed during Exercise and Recovery phases. Specifically, HR changes during exercise,
and HR and PEP changes during recovery, were consistent with stress buffering response. Additionally, perception of enjoyment was higher for the Partner Present condition. No support was given to the second hypothesis. Rather, satisfaction with social support, not level of intimacy, was significantly related to HR (Baseline to Exercise and Exercise and Recovery) and PEP changes (from Exercise to Recovery). Discussion focused on comparison of the present results to past research, and the implications for exercise prescribers.

Wendt, Vernon E. *The application of the Christian faith by small college Christian American athletes within the sport of basketball*, 2000. D.Miss., Concordia Theological Seminary (Robert Newton). (569pp 6f $30.00) PSY 2164

This study described some of the potential barriers the small college Christian American athlete faces in applying his/her faith within the sub-culture of basketball. Significant findings in the literature, and substantiated by personal (semi-structured) interviews of basketball players identified several factors which may present challenges to an athlete’s faith development and witness. The study examined how the players’ faith (including the role of scripture and prayer) affected their motivation and goals, playing performance, and relationships with others, with focus upon the effectiveness of the small college Christian American athlete’s witness to the gospel within the sub-culture of basketball. Finally, specific areas within the sub-culture of basketball that the small college Christian American athletes perceive are in need of change were discussed, including non-Christian relationships with opponents (i.e. trash talking, physical play, and poor sportsmanship), additional non-Christian relationships with others (i.e. fans, referees, teammates), and misguided others (i.e. fans, referees, teammates), and misguided motives/actions (i.e. an overemphasis on winning, profanity, individualism, poor off-court witness, the failure to be more competitive, and wrong attitudes/behaviors in general). Demographic factors that may account for the differences in how the athletes are able to integrate their faith within basketball were included. These were gender, playing status, playing position, denominational affiliation, high school background, and class standing. Significant study findings were as follows: 1) the importance of accountability in the application of the Christian faith within basketball by small college Christian athletes in America; 2) the responses by the players affirmed Stevenson’s 1991 study on Christian athletes, where players were grouped into three main categories of faith integration: the segmented type, the selective type, and the committed type; 3) an emerging pattern from the data unveiled that players may apply their faith on the playing floor, but ignore their awareness of Christian witness when doing so; 4) the status of a player can be both a blessing and a bane to Christian witness; and 5) the responses of the players verified the contention that the values of the Protestant work ethic tend to permeate the values of Christian athletes in America. Recommendations for further study are included.
PART II

KEYWORDS INDEX

for

VOLUME 14, NO. 1

This index includes keywords for titles published in microfiche format by Microform Publications in Volume 14, No. 1 (April 2001).

Each title in Part I is indexed using keywords selected and assigned from the Sport Thesaurus, published by the Sport Information Resource Centre (SIRC), located in Gloucester, Canada. (Users should note that British spelling conventions [e.g., behaviour] occasionally appear.) In addition to keywords identifying the content of a study, the major research methods are identified by the statistical technique employed and appear in brackets immediately following the author’s name. Users may find these methodological and statistical descriptors helpful in identifying a particular design or statistical prototype for their own research investigations. A listing of statistical abbreviations used in this index is found on the following page.

The keywords appear in alphabetic order and are followed by the author names of the doctoral or master’s theses that they refer to. Because each thesis will have more than one keyword, author names appear several times under different keywords. The author names are followed by the research and statistical methods used in the study. These are contained in brackets—the letters in front of the dash refer to the research methods, those following the dash denote the statistical methods. The methods information is followed by the subject code and number for the study. The following example illustrates the elements of each entry.

### BIOMECHANICS

Allen, D.M. [D,MA-DE,MAV] PE 3815

**Biomechanics** is one of the keywords of a study by D. M. Allen. The research methods used in the study include Descriptive and Mechanical Analysis techniques; statistics are Descriptive and Multivariate Analysis of Variance. The study’s subject code is PE 3815. To find the title of the study as listed in part I of the Bulletin, use the author index in the back of the book to find the page number on which the study by D. M. Allen is listed.

Criteria used to determine whether a study is experimental include the use of a control group and the manipulation of an independent variable or variables. Studies designed to examine correlations among selected variables in a particular population are classified as surveys.

Specific abbreviations for research methods and the statistical techniques that were used are listed alphabetically in the table on the following page.
### METHODS

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### STATISTICS

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