

**C. H. McCloy Lecture**

*Social Psychology and Physical Activity: Back to the Future (685–695)*

Diane L. Gill

In the early 1970s, both my academic career and the psychology subdiscipline within kinesiology began as “social psychology and physical activity.” Since then, sport and exercise psychology research has shifted away from the social to a narrower bio-psycho-(no social) approach, and professional practice has focused on the elite rather than the larger public. Psychology can contribute to an integrative and relevant professional discipline by going back to the future as social psychology and physical activity and by incorporating three of C. H. McCloy’s themes (a) evidence-based practice, (b) beyond dualisms, and (c) commitment to public service. Our scholarship must move beyond dualisms to recognize complexities and connections and be truly scholarship for practice. Social psychology and physical activity can serve the public by advocating for inclusive, empowering physical activity programs that promote health and well being for all.

**RQES Lecture**

*Statewide Physical Fitness Testing: A BIG Waist or a BIG Waste? (696–701)*

James R. Morrow, Jr., and Alison Ede

Statewide physical fitness testing is gaining popularity in the United States because of increased childhood obesity levels, the relations between physical fitness and academic performance, and the hypothesized relations between adult characteristics and childhood physical activity, physical fitness, and health behaviors. Large-scale physical fitness testing can be fraught with problems unless properly planned and conducted. Legislators, administrators, teachers, and parents should consider the following 10 essential issues when conducting large-scale physical fitness testing: purpose of testing, proper planning, training, quality of the data, reporting, support, costs, interpretation, programmatic matters, and policies and politics.

**Biomechanics**

*One- or Two-Legged Standing: What Is the More Suitable Protocol to Assess the Postural Effects of the Rigid Ankle Orthosis? (702–709)*

Patrice Rougier, Nicolas Genthon, Thibault Gallois-Montbrun, Steve Brugière, and Eric Bouvat

To highlight the capacity of one- and two-legged standing protocols when assessing postural behavior induced by a rigid ankle orthosis, 14 healthy individuals stood upright barefoot and wore either an elastic stocking on the preferred leg or a rigid orthosis with or without additional taping in one- or two-legged (TL) conditions. Traditional center-of-pressure (CP) measures were evaluated for the total two-feet resultant CP and under the feet (plantar CP). Focusing on the plantar CP displacements under the leg fitted with the various orthoses demonstrated particular postural behaviors for traditional parameters with main effects along the mediolateral axis. Only the TL protocol showed the limiting effects of the rigid shells on the inversion-eversion movements in healthy individuals.

**Epidemiology**

*Focus Groups to Explore the Perceptions of Older Adults on a Pedometer-Based Intervention (710–717)*

David B. Jones, Nancy E. Richeson, Karen A. Croteau, and Bonnie Cashin Farmer

Focus group methodology was used to explore in depth the perceptions of older adults who had participated in a 12-week pedometer-based intervention. Nineteen women and 8 men, ages 55–86 years, volunteered to take part in the focus groups following participation in the intervention. Four focus groups of six to eight participants were scheduled at primary sites in the southern Maine area. Analysis of the data revealed four specific topical areas: (a) factors that led to increases in daily step count, (b) factors that hindered increases in daily step count, (c) benefits of pedometer intervention program, and (d) recommendations on how to improve older adults’ physical activity. Overall, focus group participants found this intervention to be beneficial and recommended its expansion to other groups.

## **Motor Control and Learning**

*Free-Throw Shooting During Dual-Task Performance: Implications for Attentional Demand and Performance (718–726)*

Jayne Price, Diane L. Gill, Jennifer Etnier, Kurt Kornatz

In this study, the dual-task paradigm was used to determine peak attentional demand during the free-throw process. Thirty participants completed 40 free-throw trials. The free throw was the primary task, but participants also verbally responded to a tone administered at one of four probe positions (PP). Repeated measures analysis of variance showed no significant difference in free-throw performance across PPs, indicating participants were able to keep the free throw as the primary task. Repeated measures analysis of response time (RT) showed significant differences, with RT at PP1 (preshot routine) and PP2 (first upward motion of the ball) significantly higher than baseline RT. These results suggest that PP1 requires the greatest attentional demand, followed by PP2.

*Attentional Mechanisms in Sports Via Brain-Electrical Event-Related Potentials (727–738)*

Johannes Hack, Daniel Memmert, and Andre Rupp

In this study, we examined attention processes in complex, sport-specific decision-making tasks without interdependencies from anticipation. Psychophysiological and performance data recorded from advanced and intermediate level basketball referees were compared. Event-related potentials obtained while judging game situations in foul recognition and a control task provided insight into focus of attention, selective attention, and processing strategy (top-down vs. bottom-up). Results showed task-specific effects for advanced referees in components influenced by attentional focus and selective attention. Experts also seemed to profit from superior top-down strategy and were able to evaluate the stimuli more rapidly. These findings are discussed in connection with current models in neurosciences and theories of referee research.

## **Motor Development**

*Cortisol Response to Physical Activity in African American Toddlers Attending Full-Time Day Care (739–746)*

Sarah J. Wall, Mary E. Rudisill, and L. Bruce Gladden

The purpose of this study was to examine African American toddlers' cortisol response to acute physical play activity within a full-time subsidized day care environment. Saliva samples were taken from participants ( $N = 22$ , ages 26–45.5 months) before and after physical play and control play conditions at the same time of day. Actiheart™ monitors were used to estimate the intensity of the play conditions. Although heart rate and other indicators were significantly higher during physical play, no change in cortisol levels was seen pre- to postphysical play. Further research is needed to better understand the cortisol response observed.

## **Pedagogy**

*Urban Minority Ninth-Grade Students' Health-Related Fitness Knowledge (747–755)*

Xiaofen Deng Keating, Li Chen, Jianmin Guan, Louis Harrison, Jr., and Brian Dauenhauer

The purpose of the study was to examine Hispanic and other minority ninth-grade students' health-related fitness (HRF) knowledge, using FitSmart, a standardized test for high school students. The test consisted of 50 weighted multiple choice items, measuring six subcontent components. Means and standard deviations of the overall scores and the subcontent scores were computed. The findings suggested that students demonstrated mastery of one subcontent component but failed to meet passing values for all other subcontents and overall HRF knowledge. Female students outscored their male counterparts, but there was no difference for ethnicity. More efforts are needed to ensure that Hispanic and other minority high school students master fundamental HRF knowledge.

## **Psychology**

*Evaluation and Opportunities in Overtraining Approaches (756–764)*

Jolanda Roose, Wouter R. de Vries, Sandor L. Schmikli, Frank J. G. Backx, and Lorenz J. P. van Doornen

Overtraining (OT) as a sports phenomenon can be caused by stressors on various levels (physical, emotional, psychological, and social) and evokes responses on these levels. This study evaluated research and new opportunities in the field of OT by introducing an integrated multidisciplinary approach, based on the single and multistressors approach. The single stressor approach focuses on the training load-recovery imbalance, which results in a stagnating performance, excluding the etiology by nonsport-related factors. The multistressors approach includes all factors as relevant in the

etiology of a stagnating performance. In future studies on OT, an integrative approach should not only highlight changes in training regimes and specific responses to training stressors but also focus on the role of training-related recovery, the impact of stressors, and personality factors influencing stress appraisal. This will provide a better insight into the etiology and consequences of OT, necessary for prevention and treatment in sport practice, and enhance the focus on adequate recovery (good sleep, sufficient rest periods) and athletes' stress-related responses.

*Peers and Teachers as Sources of Relatedness Perceptions, Motivation, and Affective Responses in Physical Education (765–773)*

Anne Cox, Nicole Duncheon, and Lindley McDavid

Research has demonstrated the importance of relatedness perceptions to self-determined motivation in physical education. Therefore, studies have begun to examine the social factors contributing to feelings of relatedness. The purpose of this study was to examine teacher (perceived emotional support) and peer (acceptance, friendship quality) relationship variables to feelings of relatedness, motivation, and affective responses in junior high physical education students ( $N = 411$ ). Results revealed that perceived relatedness mediated the relationship between variables and self-determined motivation and related directly to the amount of enjoyment and worry students experienced. These findings demonstrate that relationships with both teachers and peers are important for students' relatedness perceptions, motivation, enjoyment, and worry in physical education.

*Psychological Need Fulfillment Among Workers in an Exercise Intervention: A Qualitative Investigation (774–787)*

Leslie Podlog and Rylee A. Dionigi

The purpose of this study was to explore the perceived factors affecting workers' participation in an exercise intervention and interpret the findings within self-determination theory (Ryan & Deci, 2000a; 2007). Research examining the impact of psychological need satisfaction on exercise outcomes is not well established (McDonough & Crocker, 2007; Ryan & Deci, 2007). Even less is known about the processes through which workers negotiate a range of individual, group and context-based factors to fulfill these basic needs in exercise settings. To provide such insight, focus group interviews were conducted with 10 factory workers to discuss their involvement in a 7-week exercise intervention. Results indicated that a negotiation of complementary and competing factors (i.e., skill acquisition and regaining physical capabilities, a sense of camaraderie, characteristics of the trainer, exercise context, a sense of obligation, scheduling) affected workers' need fulfillment, which ultimately affected their exercise adherence. The implications for health practitioners aiming to meet the psychological needs of workers involved in exercise interventions are discussed.

**Research Notes**

*The Impact of an Obstacle Course Sport Education Season on Students' Aerobic Fitness Levels (788–791)*

Peter A. Hastie, J. Brandon Sluder, Alice M. Buchanan, and Danielle D. Wadsworth

*A Survey of Basic Instructional Program Graduate Teaching Assistant Development and Support Processes (792–795)*

Jared A. Russell

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