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Commentary and Dialogue

Comments on "The Feldenkrais Method®: A Dynamic Approach to Changing Motor Behavior" (pp. 116–123)
Jeffrey C. Ives

Attending to the Process of Changing Behavior: A Reply to Ives' Commentary (pp. 124–126)
Patricia A. Buchanan and Beverly D. Ulrich

Epidemiology

Relieving the Pressure? The Role of Physical Activity in the Relationship Between School-Related Stress and Adolescent Health Complaints (pp. 127–135)
Siren Haugland, Bente Wold, and Torbjørn Torsheim

The present study includes a Norwegian sample of 15-year-old students ($N = 1,670$) and is part of a World Health Organization cross-national survey, Health Behavior in School-Aged Children (Currie, 1998). The objective was to examine the relationship between school-related stress, leisure time physical activity, and adolescent health complaints. Physical activity was also examined as a moderating variable in the relationship between school-related stress and health complaints. The results showed that high levels of complaints were associated in a linear relationship with high levels of school-related stress and low levels of leisure time physical activity. Reports of complaints were more closely related to stress for adolescents with low levels of physical activity; thus, physical activity seems to moderate the relationship between school-related stress and health complaints.

Growth and Motor Development

Physical Activity, Physiological, and Psychomotor Performance: A Study of Variesly Active Older Adult Men (pp. 136–142)
Carol L. Christensen, V. Gregory Payne, Emily H. Wughalter, Jin H. Yan, Michael Henehan, and Robert Jones

This research examined varying levels of physical activity and psychomotor and physiological function in variously active older men. Very active, moderately active, and low active participants were tested on simple (SRT) and choice reaction time (CRT), coincidence-anticipation timing (CAT), and $VO_2\max$. No significant differences for age or height were found, although percentage of fat, and weight were statistically different. Active groups were leaner and lighter. $VO_2\max$ was significantly different between groups, as physically active groups yielded greater values. SRT and CAT also yielded significantly different results with more active participants showing better performance. No between-groups significant differences resulted for CRT. Generally, increased levels of physical activity were related to superior physiological outcomes and improved psychomotor performance.

Gender and Ethnic Changes in Physical Work Capacity From Childhood Through Adolescence (pp. 143–152)
Robert G. McMurray, Joanne S. Harrell, Chyrise B. Bradley, Shijing Deng, and Shrikant I. Bangdiwala

This study determined gender and ethnic differences in physical work capacity (PWC170) of 8–16-year-old American youth as they progress from elementary to high school. A multicohort group of 2,540 youth participated: 50.4% girls (21.4% African Americans, and 78.6% Caucasians). PWC170 was predicted from cycle ergometer testing six times over a 7-year period. The absolute PWC170 of girls stabilized in early adolescence, while boys increased with each trial. The PWC170 relative to body weight of girls decreased steadily, whereas the boys remained stable. African Americans had greater absolute PWC170 values than Caucasians ($p = .0001$). The relative PWC170 was lower for African American girls than Caucasian girls ($p = .0001$), but there were no ethnic differences for boys ($p > .05$). Although correlations and grouping suggested moderate tracking, girls with high relative PWC170 tended to migrate to lower levels as they aged, whereas high-performing boys maintained their PWC170 as they aged.

Measurement and Evaluation

Self-Defense and Martial Arts Evaluation for College Women: Preliminary Validation of Perception of Dangerous Situations Scale (pp. 153–164)
Patricia Paulsen Hughes, Claudine Sherill, Bettye Myers, Nancy Rowe, and David Marshall

Martial arts and self-defense programs train fearful people, especially women, to be more competent and confident to defend themselves in dangerous situations. However, there are no validated instruments to evaluate the effectiveness of programs purporting to teach self-protection. The Perceptions of Dangerous Situations Scale (PDSS), composed of fear, likelihood, and confidence subscales, was developed and validated for university women. Participants were 368 university women, ages 17–45 years (M age = 20.7 years). Content validity of the PDSS was established through an expert panel, and construct validity was established through principal components analysis and determination of instructional sensitivity. Reliability was established through alpha coefficients. The PDSS, when used with university women, offers promising measurement opportunities in self-defense and martial arts settings.

Motor Control and Learning

Guiding Movements With Internal Representations: A Reach-and-Grasp Task (pp. 165–172)

Alissa D. Fourkas, Ronald G. Marteniuk, and Michael A. Khan

We investigated participants' ability to use internal representations of the environment to guide prehensile movements, when visual feedback was not available. Reaching and grasping performed with concurrent visual feedback was compared to conditions in which participants actively formed spatial images and passively encoded images from visually presented information. Movement times, the proportion of time spent after peak velocity and peak apertures, were greater when concurrent visual feedback was unavailable. Movement times increased as a function of premovement occlusion length, with passively encoded images resulting in shorter movement durations than actively formed images. The findings indicated that participants adapted their movement trajectories to compensate for the degradation of stored spatial information, when concurrent visual feedback was not available.

Pedagogy

Physical Activity and Situational Motivation in Physical Education: Influence of the Motivational Climate and Perceived Ability (pp. 173–182)

Loraine E. Parish and Darren C. Treasure

The influence of perceptions of the motivational climate and perceived ability on situational motivation and the physical activity behavior of 213 male and 229 female adolescent physical education students (M age = 12.56 years; SD = 0.96) was examined over a 3-day period. A significant age by gender interaction emerged, with physical activity declining from the sixth to eighth grade. The decline was more pronounced among female than male students. Perceptions of a mastery climate were strongly related to more self-determined forms of situational motivation. In contrast, perceptions of a performance climate were strongly related to less self-determined forms of situational motivation. Results of a hierarchical regression analysis revealed gender, perceived ability, and perceptions of a mastery climate to explain a significant amount of variance in physical activity. These findings suggest that promoting a mastery oriented motivational climate in physical education will foster self-determined situational motivation and physical activity.

The Influence of Gender-Related Beliefs and Conceptions of Ability on Women Learning the Hockey Wrist Shot (pp. 183–192)

Don Belcher, Amelia M. Lee, Melinda A. Solmon, and Louis Harrison, Jr.

The purpose of this study was to determine the influence of beliefs about gender appropriateness and conceptions of ability on perceived and actual competence and patterns of behavior during practice of the hockey wrist shot. Sixty-eight undergraduate women formed four treatment conditions based on their beliefs about gender appropriateness and conceptions of ability. Four teachers taught across the treatment conditions for a total of 16 learning groups. Data were collected through a three-part questionnaire and from audio-video taping of the entire episode to ascertain the participants' competency beliefs, effort, and performance. Gender appropriateness impacted the participants' perceptions of competence and actual performance in the study, while beliefs about conceptions of ability did not produce a significant difference. This study reaffirms that educators must work diligently to combat the stereotypical beliefs many hold with respect to the gender appropriateness of physical activities.

Sociology and Cultural Anthropology

Gender Typing of Sports: An Investigation of Metheny's Classification (pp. 193–204)

Brenda A. Riemer and Michelle E. Visio

The purpose of this study was to investigate if children perceived certain sports to be masculine, feminine, or neutral. Students attending a University Laboratory school (grades K–12) were asked to fill out a survey about sports during a class period. Children in grades K–6 were given a sport (such as baseball) and asked if a boy named David would play it, if a girl named Jane would play it, or if both David and Jane would play the sport. Students in grades 7–12 were asked to name their favorite athlete or team and sport and indicate what sports they felt was best for a girl and a boy. Then they were given a list of sports and asked to indicate, using a 5-point Likert-type scale, whether they believed the sport was masculine, neutral, or feminine. Results from loglinear analyses indicated that students sex-typed certain sports, such as aerobics and football. Additionally, although some responses from students in grades 7–12 indicated that individuals should be able to play any sport they wanted, there were many gendered responses in terms of what sport(s) girls and boys should participate in. The results are discussed with reference to Metheny's categories of permissible sports for girls and in the framework of the gender typing of sport.

Perceptions of Homophobia and Heterosexism in Physical Education (pp. 205–214)
Ronald G. Morrow and Diane L. Gill

Educators have a responsibility to provide safe space, but gay and lesbian youth face particularly hostile environments. This initial study surveyed physical education teachers (n = 82) and young adults (n = 77) about their perceptions of homophobic and heterosexist behaviors within physical education and teachers' use of inclusive behaviors. Most teachers and both gay and straight students witnessed heterosexist and homophobic behavior, and most lesbian and gay students had personally experienced homophobic behavior. These data indicate that homophobic and heterosexist behaviors are common in secondary schools, that teachers intend to provide a safe space, and that teachers fail to confront heterosexist or homophobic behaviors and take proactive steps to create an inclusive environment.

Research Notes

Analysis of Stroke Organization in the Backstroke as a Function of Skill (pp. 215–219)
Robert Lerda and Chantal Cardelli

The Influence of External and Internal Foci of Attention on Transfer to Novel Situations and Skills (pp. 220–225)
Vasiliki Totsika and Gabriele Wulf