JOURNAL OF SPORT
& EXERCISE PSYCHOLOGY

Volume 40 • Supplement • August 2018

North American Society for the Psychology of Sport and Physical Activity

Denver, Colorado

June 20–23, 2018

Contents

The Journal of Sport & Exercise Psychology is an official publication of the
North American Society for the Psychology of Sport and Physical Activity

Conference Chairs and Committees

Conference Program Chair	Daniela Corbetta, University of Tennessee, Knoxville, USA
Site Coordinator	Penny McCullagh, California State University-East Bay, USA

Motor Development

Jane E. Clark, University of Maryland, USA
Laura J. Claxton, Purdue University, USA
Jeffrey Haddad, Purdue University, USA (Chair)
Anastasia Kyvelidou, Creighton University, USA
Mei-Hua Lee, Michigan State University, USA
Sam Logan, Oregon State University, USA
Vitor Lopes, Instituto Politécnico de Bragança, Portugal
Beth A. Smith, University of Southern California, USA

Motor Learning and Control

Kevin Becker, Texas Woman's University, USA
Jeffrey Fairbrother, University of Tennessee-Knoxville, USA (Chair)
Jan Hondzinski, Louisiana State University, USA
Rob Horn, Montclair State University, USA
Deanna Kennedy, Texas A&M University, USA
Keith Lohse, University of Utah, USA
Cassio Meira, University of São Paolo, Brazil
Nick Murray, University of Carolina, USA
Louisa Raisbeck, University of North Carolina-Greensboro, USA
Diane Ste-Marie, University of Ottawa, Canada

Sport and Exercise Psychology

Brandon Alderman, Rutgers University, USA
Ian Boardley, University of Birmingham, UK
Jennifer Brunet, University of Ottawa, Canada
Anne Cox, Washington State University, USA (Chair)
Diane Gill, University of North Carolina-Greensboro, USA
Ben Jackson, University of Western Australia, Australia
Meghan McDonough, University of Calgary, Canada
Matthew Pontifex, Michigan State University, USA
Cheryl Stuntz, St. Lawrence University, USA
Kathleen Wilson, California State University, USA

Executive Committee

President	Steve Bray, McMaster University, Canada
President-Elect	David Anderson, San Francisco State University, USA
Past-President	Daniela Corbetta, University of Tennessee-Knoxville, USA
Past-Presidents' Liaison	Jill Whitall, University of Maryland-Baltimore, USA
Communication Director	Sarah Ullrich-French, Washington State University, USA
Secretary-Treasurer	Leah E. Robinson, University of Michigan, USA
Student Representative	Taylor Buchanan, University of Florida, USA

The abstracts contained in this publication were submitted by authors using the NASPSPA Web site.

Journal of Sport and Exercise Psychology

physical fitness (PF). Methods: This is a mixed longitudinal study lasting five years. Participants were N=147 of both sexes (69 girls) divided in 8 cohorts, at baseline the youngest and the oldest cohorts had 4 and 11 years of age respectively. Height and weight were assessed and BMI was calculated [weight (kg)/height (m2)]. MC was assessed with KTK, TGMD-2 and PF was evaluated with one-mile run/walk. Developmental trajectories of BMI were identified using latent class mixed modeling. Post-hoc analyses were calculated using linear models. Results: Modeling revealed four based on the information criteria minimum. However, two classes show very low numbers ($n < 6$). Therefore, two meaningful classes were identified based on modelling and content related considerations. Class 1 (36%) show larger initial BMI and a larger slope compared to class 2 (64%). No differences were identified in locomotion and object control. For Class 2 increases faster compared to class 1 ($p < .05$) and class 2 shows better physical fitness ($p < .05$). Conclusion: This study identified two meaningful trajectories for children based on their BMI development across five time points. In line with previous research, children with slower increasing BMI showed better physical performances and performance improvements. This shows the importance and interplay between multiple indicators of physical health.

Cross-cultural comparisons of perceived and motor competence and health-related fitness in children and adolescents with and without disabilities

Symposium organizer(s): Carlos Luz, Instituto Politécnico de Lisboa, Portugal; David Stodden, University of South Carolina

Symposium discussant: *Priscila Caçola, University of Texas at Arlington*

Overview abstract

Carlos Luz, Instituto Politécnico de Lisboa, Portugal; David Stodden, University of South Carolina

In the last decade, a growing number of researchers around the world have investigated relationships among physical activity (PA), motor competence (MC), perceived motor competence (PMC), health-related physical fitness (HRF) and weight status in youth (see Robinson et al., 2015). Comparing strengths of associations among variables in studies among countries is difficult as cultural and climate differences may influence how children develop. In addition, culture may influence the types of movement skills in various test batteries and may lead to differences in performance in skills by individuals in different countries as well as their relationship to other health-related variables. Due to the potential impact that culture and climate differences may have on have on children's motor development, it is critical to conduct cross-cultural studies. These studies will provide a better understanding of differences and similarities in MC and other health-related variable levels on a global level.The first presentation compares Portuguese and U.S boys and girls (average age) performance on HRF (e.g. PACER test) and MC variables (e.g. kicking velocity), The second presentation explores how MC differs in three very different European countries and discusses how differences change with age and weight status. The third presentation emphasizes the differences in performance in a new MC task (Supine to Stand) among Brazilian and U.S children and adolescents. The fourth presentation focuses on the differences between PMC and MC between Belgian and Australian adolescent girls. The last presentation is centered on the performance of Latvian and U.S. children with special needs (visual impairments) on several variables (PA, PMC e MC).The discussant will focus on the importance of gaining more insight in the country specific factors that might lead to differences in motor competence (e.g. differences in school systems, obesity rates, safety for outdoor activities, parents' attitudes, etc), and will discuss recommendations for future research.

A cross-cultural comparison of motor competence and health related fitness variables between Portuguese and American children

Carlos Luz, Instituto Politécnico de Lisboa & CIED, Portugal; Rita Cordovil, Universidade de Lisboa, Portugal; Luís Paulo Rodrigues, Instituto Politécnico de Viana do Castelo, Portugal; Zan Gao, University of Minnesota; Jacqueline Goodway, Ohio State University; Ryan Sacko, Ohio State University; Danielle Nesbitt, University of South Carolina; Rick Ferkel, Central Michigan University; Larissa True, State University of New York at Cortland; David F. Stodden, University of South Carolina

Objectives: Cultural contexts are expected to influence motor competence (MC) and health-related fitness (HRF), but the extent to which the development of these factors in childhood are similar or different across countries is not known. The purpose of this study was to compare MC and HRF data of boys and girls from Portugal and the U.S. Methods: The sample consisted of 1,218 children, between 6 and 13 years of age, from Portugal (52% boys; age = 10.14 +/– 2.13 y) and the USA (48% boys; age = 9.48 +/– 1.62 y). Raw MC variables (ball skills [kicking velocity, throwing velocity] and standing long jump [SLJ]) and HRF data (handgrip and PACER test) were assessed. The sample was analyzed according to sex and two age groups (6–9 and 10–13 year-olds). To investigate the differences between countries and interaction effects, ANOVAs were used in kicking and throwing velocity, and ANCOVAs were used for the handgrip, PACER and SLJ tests with body mass index as the covariate due to its known influence in these tasks. Results: Main effects for age ($p < 0.001$) and country ($p < 0.001$) were consistent for all variables except for girls (by country) in the SLJ. Not surprisingly, older boys and girls outperformed their younger counterparts. For both sexes, Portuguese children presented significantly higher scores in SLJ and PACER tests, and US children demonstrated significantly higher scores in handgrip and throwing velocity tests. For kicking velocity, Portuguese boys outperformed American boys, but American girls outperformed Portuguese girls. Moreover, US girls tend to be better at ball skills and the differences in ball skills between the two countries became more pronounced in the older age group. Conclusions: A clear cultural effect was noted depending on the type of task. Portuguese children (specifically boys) had better skill and HRF in tasks that involved the lower extremity whereas US children's skill and HRF was better in tasks involving the upper extremity. Such findings may tie to the sporting/cultural environment in the respective countries.

Cross-cultural differences in children' motor competence are accumulating along the age and in the interaction of body weight status

Vitor Lopes, Polytechnic Institute of Braganca, Portugal; Arto Laukkanen, University of Jyväskylä, Finland; Farid Bardid, University of Strathclyde, Scotland; Matthieu Lenoir, University of Ghent, Belgium; Tommi Vasankari, Pauliina Husu, UKK-Institute, Finland; Arja Sääkslahti, University of Jyväskylä, Finland

Objectives: The present study examined differences in 5–9-year-old children's motor competence (MC) across Northern-, Central-, and Southern European countries using the Körperkoordinationstest für Kinder (KTK). A secondary aim was to examine whether the cross-cultural differences in MC accumulate in the interaction with children's age group and body weight status determined as being normal or overweight. Methods: Data was pooled from four independent studies conducted in Finland (mean age 7.31 +/– 1.38 years, n = 360 + 432), Belgium (mean age 8.19 +/– 1.14 years, n = 1936) and Portugal (mean age 8.31 ± 1.02 years, n = 758) between years 2008 and 2016. Differences between countries in the raw scores of KTK and the interaction effects were tested by using one- and two-way analyses of covariance. Age, sex and BMI percentile were

Journal of Sport and Exercise Psychology

used as covariates. Results: Country explained significantly (9%) the variance in MC, meanwhile age (44%) and BMI percentile (5%) were significant covariates. Age and country had significant interaction effect (6%), as well as country and body weight status (2%). Conclusions: Results strengthen existing literature showing cross-cultural differences in children's MC. Based on the present results, the differences are accumulating along the childhood. Novel finding of the study suggests polarization in the development of MC between normal and overweight children is differing across countries. Further studies is needed for exploring the reasons explaining the age and body weight status interaction effects in cross-cultural differences in children's MC.

Is STS time a context-independent measurement for motor competence? A cross country comparison study (Brazil-US)

Danielle Nesbitt, University of South Carolina; Maria T. Cattuzzo, University of Pernambuco, Brazil; Ívina A. A. Soares, University of Pernambuco, Brazil; David F. Stodden, University of South Carolina

Objective: Supine to Stand (STS) time is a postural righting task that has the potential to globally (i.e., without cultural bias) assess motor competence across childhood and into young adulthood (Nesbitt et al., in press). However, STS performance must be compared across cultures to validate its potential to be a developmentally valid and context independent assessment of MC. The purpose of this study was to examine differences in STS time between 9–17-year-old children and adolescents in the United States and Brazil. Methods: Two convenience samples (N = 235) of two specific age ranges from middle childhood through adolescence (9–17 years) were included in the final data set. One sample (n = 123) was collected in the United States (US). The second sample (n = 112) was collected in Brazil. To measure STS time, children started in a supine position on the floor with their heels at least 30 cm from a wall in front of them; they were asked to stand as quick as possible and touch a designated spot on this wall. Individuals performed five trials of the STS task with no instruction or demonstrations. The time between trials was self-selected to minimize fatigue. Their average time was measured using Dartfish Software. Time was calculated from the first initial movement to the point where the participant touched the designated spot on the wall. A two-sample t-test was conducted to compare the STS time among US and Brazilian children and adolescents. Results: The mean STS-time score differences for U.S. children (M = 1.65, SD = .36) and Brazilian children (M = 1.92, SD = .43) were not statistically significant, t(124) = -0.38, p = .13. Similarly, the mean STS-time score differences for U.S adolescents (M = 1.71, SD = .31) and Brazilian adolescents (M = 1.79, SD = .42) were also not statistically significant, t(107) = -1.11, p = .12. Conclusion: Overall, findings provide evidence that STS time may be an assessment of motor competence that is not limited by cross cultural context.

A cross-cultural comparison of Australian and Belgian female adolescents' actual and perceived motor competence

Natalie Lander, Deakin University, Australia; An De Meester, Ghent University, Belgium; Lisa Barnett, Deakin University, Australia

Objectives: Low motor competence, especially object control competence (OCC), and low perceived motor competence (PMC) are potential barriers of youth physical activity participation, particularly among girls. Recent evidence suggests that youth from different cultures may differ in their motor competence, yet limited research has been conducted in adolescents, particularly in girls. Therefore, the study aim was to evaluate OCC and PMC of young, female adolescents from Australia and Belgium. Methods: The sample included 190 Australian (47% of total sample; age = 12.47 +/– .34 y) and 218 Belgian (age = 13.15 +/– .41 y) girls. OCC was measured with process-oriented measurements (i.e., the Victorian test & Test of Gross Motor Development-2) of the catch, kick and overhand throw. Raw scores were converted to percentage of maximal possible score to provide an acceptable comparison between Australians and Belgians. PMC was measured with the athletic competence subscale of the Physical Self-Perception Profile. Differences in OCC and PMC between Australian and Belgian girls were examined with an ANCOVA (controlling for age). Results: There was no significant difference in OCC between Australian (M = 63.80% of maximal possible OCC score; SD = 12.84) and Belgian girls (M = 67.09%; SD = 12.43; F = 2.29; p = .13) with both groups only achieving 2/3 of the maximal score. However, a significant, yet small difference in PMC (partial eta squared = .01) was found with Australian girls (M = 15.42 on a 4–24 range; SD = 1.64) scoring slightly lower than Belgian girls (M = 15.89; SD = 3.88; F = 4.07; p=.04). Conclusions: Typically developing children should have the capacity to consistently improve competency in their skills across childhood if provided appropriate learning environments. However, our results indicate that only circa 2/3 of the maximal OC score has been achieved, with no difference observed between countries. Therefore, motor competence (both actual and perceived) development, in early-adolescent girls should remain a global research priority.

Predictors of physical activity among Latvian and US children/adolescents with visual impairments

Ali Brian, University of South Carolina; An De Meester, Ghent University, Belgium; Aija Klavina, Latvian Academy of Sports Education Riga, Latvia; Sally Taunton, University of South Carolina; Adam Pennell, University of South Carolina; J. Megan Irwin, University of South Carolina; Lauren J. Lieberman, State University of New York at Brockport

Introduction/Objectives: Children and adolescents with visual impairments (CWVI) often report difficulties with) gross motor skills and low levels of perceived motor competence (PMC), and participating in physical activity (PA). Difficulties are often exacerbated by degree of VI and can be influenced by sex. In Latvia, there may be differences within the built environment and schools given the legal and cultural differences from the United States (US). However, how culture affects CWVI is unclear. Moreover, which factors predict PA for CWVI requires further exploration. The purposes of this study were to explore the differential effects of country on PA, PMC, and gross motor skills and to examine which factors predict PA for CWVI from Latvia and the US. Methods. CWVI ages 9-18 years (N = 35; Mage = 14.28 years, SD = .63) from Latvia (n = 18) and the US (n = 17) completed the Test of Gross Motor Development – 3, the Physical Activity Questionnaire for Children/Adolescents and the Test of Perceived Motor Competence for Children with Visual Impairments. Analyses/Results. There were no significant differences for object control skills and PA by country (p>.05). However, Latvians demonstrated significantly greater locomotor skills (p<.05) but lower PMC (p.05), but those who were blind revealed significantly greater difficulties with gross motor skills than those with mild/moderate VI across countries (p<.05). Latvians who were blind revealed the lowest gross motor skills of the entire sample and were significantly behind CWVI from the US (p.05) (F(3,31)=3.013, p=.02, R^2=.41). Discussion/Conclusion. Given the impact of PMC on PA and that Latvians revealed lower PA and PMC, intervention may be warranted. Further exploration into the cultural differences regarding Latvia and US are also needed to explain differences.

Journal of Sport and Exercise Psychology