

Digest

Sport and Exercise Group Researchers Take Note! Conceptual and Methodological Innovations in the Study of Group Processes

Although group dynamics research in our field has been ongoing for decades, there are continued and ongoing efforts to better understand groups in exercise and sport. Although the study of sport and exercise groups is “healthy,” our theories to describe group processes have become more detailed and the analytical tools employed increasingly sophisticated. For instance, multilevel modeling is now the norm rather than the exception for studying groups. In this review paper, the authors note a similar pattern within industrial and organizational psychology, but nevertheless, they raise key issues and related advances in assessing and modeling group processes. Specifically, they describe the dynamic and emergent nature of group phenomena, whereby interactions among team members over time bring rise to recognizable team-level processes related to cognition (e.g., shared mental models), motivation and affect (e.g., cohesion), and behavior (e.g., coordination). Despite this inherently dynamic nature, researchers commonly study the group processes at a static level through self-report of members, with studies often constrained to designs that do not adequately represent emergent processes. First, the authors highlight the need to conduct intensive longitudinal research that captures member behaviors. Specifically, they describe the potential to capture emergent processes through passive sensors and even through digital traces that members leave behind (e.g., e-mail patterns). For example, they describe the use of sensors that detect aspects of member interaction and physical states (e.g., distance between members, vocal intensity, heart rate, heart rate variability) to produce richer understanding about the nature of constructs such as group cohesion. Second, they emphasize the need to develop theories that better integrate the multilevel and dynamic nature of team phenomena. For example, the authors describe opportunities to use computational modeling to create formal models, based on mathematically specified “rules” about how members interact, that represent human behavior in groups. These models allow researchers to conduct virtual experiments that test theoretical propositions that attempt to predict future member behavior. These predictions can be further validated through real-life research. The authors describe an example related to space flight crews as a potential for area of practical impact; team interaction sensors could continually assess member behavior and notify members of key events (i.e., conflict) that are predicted to influence the group environment, followed by delivering a brief intervention to enhance member functioning. Sport and exercise group researchers will have increasing access to technology (e.g., devices to track athletes on the field of play) and the opportunity to make use of methodological and analytical tools to advance how we study groups.

Kozlowski, S.W.J., & Chao, G.T. (2018). Unpacking team process dynamics and emergent phenomena: Challenges, conceptual advances, and innovative methods. *The American Psychologist*, 73, 576–592. doi:10.1037/amp0000245

Journal website: <https://www.apa.org/pubs/journals/amp/>

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Developing Sustainable Approaches to Prevent Concussions in Youth Sport

Concussion has emerged as a critical concern in youth sport. Emerging research continues to demonstrate immediate and life-long consequences of concussions in youth sport. As a result, sport organizations and researchers alike have increasing will to develop strategies to prevent concussions. This article reviews the current state of concussion prevention in youth sport and presents an approach to address shortcomings of current approaches using a popular opinion leader intervention approach. When considering the problem of concussion, the authors describe the need to address prevention across several levels—ranging from strategies to prevent concussions from taking place (primary), to those for managing injury (secondary), and preventing long-term complications (tertiary). The authors also note how existing intervention approaches tend to focus on either shifts in policy or on changing individual-level factors (e.g., knowledge of coaches or athletes). The authors argue that a popular opinion leader approach is a promising strategy to focus on the interpersonal processes that are expected to have substantial effects at all levels of prevention. This approach specifically employs the diffusion of innovation framework, wherein trusted and respected individuals are ideal messengers when the focus is on changing norms within a community. Although popular opinion leader approaches are evident in other contexts (e.g., HIV prevention), there are no published examples of such an approach in youth sport. As such, the authors recommend a concussion prevention strategy where coach, parent, and athlete popular opinion leaders (i.e., influential individuals) are identified and then receive training related to education, breaking myths, and practicing conversations with peers. This education is expected to impact their behaviors and lead to diffusion among others in their social network. The authors detail the challenges and opportunities for applying such an approach to sustainably prevent youth sport concussion. The current review ultimately describes the potential for a popular opinion leader approach and describes it as a potentially powerful mechanism to shift cultures within youth sport. Furthermore, although concussion was the core focus of the authors’ review, this approach could be a feasible prevention strategy to address numerous challenges facing the youth sport community today (e.g., bullying and abuse, hazing, substance use, physical activity adherence).

Kerr, Z.Y., Register-Mihalik, J.K., Haarbauer-Krupa, J., Kroshus, E., Go, V., Gildner, P., . . . Marshall, S.W. (2018). Using opinion leaders to address intervention gaps in concussion prevention in youth sports: Key concepts and foundational theory. *Injury Epidemiology*, 5, 28. doi:10.1186/s40621-018-0158-7

Journal website: <https://link.springer.com/journal/40621>

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Is More Better? Perfectionism, Burnout, and Stress in Specialized and Multisport College Athletes

The purpose of this study was to examine the relationships among perfectionism, stress, and burnout in specialized and multisport college athletes. Burnout is prevalent in athletes who perceive sport as having more demands than rewards in addition to having inadequate resources to cope with the demands. Although burnout does not always lead to sport dropout, it can, in combination with other negative psychological states, lead to discontinuation of sport. For example, prolonged experiences of stress have been linked to increased burnout in athletes, and it has been argued that specialization in one sport could lead to increased stress and burnout. However, multisport athletes are uncommon at the collegiate level considering factors such as time commitments and scholarship constraints. Furthermore, perfectionism is a personality characteristic related to both stress and burnout and may in fact predispose athletes to experiencing greater stress. Consequently, this study investigated the mediating effect of stress on the relationship between perfectionism and burnout and differences between specialized and multisport college athletes. Data were collected from 351 NCAA track-and-field athletes competing at Division II and III colleges. Participants responded to demographic questions and measures of perfectionism (perfectionistic concerns and perfectionistic strivings), perceived stress, and burnout. Results indicated both direct and indirect effects between perfectionistic concerns and perfectionistic strivings on perceived stress and burnout. In particular, they found a direct positive path from perfectionistic concerns to burnout, with perceived stress a partial mediator of the relationship. The results also revealed a significant difference in stress between specialized and multisport athletes, with specialized athletes experiencing higher levels of stress compared with multisport athletes. However, no significant differences emerged for perfectionistic concerns or burnout between specialized and multisport athletes. The authors conclude that although future research is needed to investigate the complex nature of the relationship between perfectionism, stress, and burnout in college athletes, the current study provides support for the role stress plays in athlete burnout.

Garinger, L.M., Chow, G.M., & Luzzi, M. (2018). The effect of perceived stress and specialization on the relationship between perfectionism and burnout in collegiate athletes. *Anxiety, Stress, & Coping, 31*, 714–727. doi:10.1080/10615806.2018.1521514

Journal website: <https://www.tandfonline.com/loi/gasc20>
 Author website: https://www.researchgate.net/profile/Lindsay_Garinger

Which Is Better for Successful Aging, Sport-Based or Exercise-Based Leisure-Time Physical Activities?

There are numerous choices in terms of physical activity pursuits. Regardless of the type of leisure-time physical activity, many benefits have been noted. The authors of this study note literature that may suggest differences in choice of activity in terms of motivation; however, little research has explored how sport-based compared with exercise-based leisure-time physical activities contribute to successful aging. This study took a mixed-methods approach given the variability and subjective nature of “successful aging.” Women (age range 60–92 years) were recruited from two sports-based activity leagues (bowling and golf) and two

exercise-based activities (swimming and walking). Participants ($N=256$) completed demographic information including age, education, income, marital status, employment status, alcohol and tobacco use, medication conditions, and health status. Activity-related information was also completed in terms of years spent in the activity, days per week engaged in the activity, level of expertise, lifetime physical activity history, and devotion to participation in the activity. Successful aging was rated on a scale from 1 to 10. After the survey, a one-on-one interview was conducted to explore reasons for participation in 79 of the women. Quantitative analysis showed that there were no differences in self-rated successful aging between women who participated in sport-based activities and those participating in exercise-based activities. Findings also suggested that devotion to the physical activity, regardless of type, was related to higher ratings of successful aging. Qualitative analysis showed that there were differences between the groups in terms of motivations for the activity—women involved in sport-based activities highlighted social and psychological benefits versus those in the exercise-based activities who reported fitness benefits. Swimming and bowling participants noted the low impact nature of the activity. Walkers and golfers noted enjoying their activity because it was performed outside. Many participants, regardless of group, admitted their dislike for “exercise” which conjured images of treadmills and weight training and was viewed as boring, monotonous, and lonely. Thus, perhaps it is the level of devotion to, or motivation for, the activity which is linked to successful aging and not the activity type itself. The authors suggested future research should attempt to understand the mechanisms by which this link occurs.

Berlin, K., Kruger, T., & Klenosky, D.B. (2018). A mixed-methods investigation of successful aging among older women engaged in sports-based versus exercise-based leisure-time physical activities. *Journal of Women & Aging, 30*, 27–37. doi:10.1080/08952841.2016.1259439

Journal website: <http://www.tandfonline.com/loi/wjwa20>

Author website: <https://shhs.iupui.edu/about/directory/berlin-kathy.html>

Securing Physical Activity: The Role of Healthcare Assistants in Fostering Physical Activity in a Secure Mental Health Facility

Research has shown that people with severe mental illness engage in less physical activity and more sedentary behavior than the general population. It has been suggested that the restrictive environment of a secure mental health setting exacerbates barriers to physical activity and serves to facilitate sedentary time. In light of a public health push to reduce levels of obesity in secure settings in England, these authors explored the role of healthcare assistants' perceptions of exercise and attitudes to exercise promotion in a secure mental health facility. In this setting, healthcare assistants work on the wards 24 hours per day and deliver hands-on care, alongside other staff such as mental health nurses. However, they typically receive less formal education and training than mental health nurses. Healthcare assistants ($N=11$) across seven mental health facility wards were interviewed. A thematic analysis was conducted, and three main themes emerged: exercise as multi-beneficial to patients (i.e., exercise as a “normalizing effect” and as a therapeutic tool), perceived barriers to effective exercise promotion (i.e., organizational culture and inconsistent “buy in” from staff), and strategies for successful behavior change (i.e., informal