

# Veille scientifique en sport, loisir et activité physique Janvier 2024

Mensuellement, l'équipe de l'Observatoire québécois du loisir réalise une veille permettant de répertorier plusieurs articles scientifiques récents. En collaboration de la Direction du sport, du loisir et de l'activité physique (DSLAP), nous vous proposons de nombreux articles portant sur des thématiques variées : sport, activité physique, sécurité et intégrité dans les sports, loisir et plein air.

Voici la recension pour janvier 2024. Vous y trouverez 32 références.

#### Bonne lecture!

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# Résumés

# 1. Développement du sport

The mediating role of sport-specific PERMA in the relationship between physical activity/passive sport and global well-being/loneliness

The current study examined the mediating role of sport-specific PERMA in the relationship between physical activity/passive sport consumption and global well-being/loneliness. We collected data to establish two-wave panel data for a sample of 481 participants across Japan. Structural equation modeling was performed to examine the hypothesis model. The results showed that sport-specific eudaimonic well-being significantly mediated the hypothesized relationships between PA/passive sport consumption and all dependent variables, including life satisfaction, psychological well-being, and loneliness. The results indicate that eudaimonic well-being in sport plays a key role in increasing global well-being and decreasing loneliness. These findings can help authorities optimize local resources as promoting and maintaining individual well-being is essential for society. The results contribute to understanding the role of sport-specific PERMA in global well-being and loneliness in the body of literature.

Oshimi, D., Kinoshita K. & Yamashita R. (2023). <u>The mediating role of sport-specific PERMA in the relationship between</u> physical activity/passive sport and global well-being/loneliness, Journal of Leisure Research.

#### Retour au sommaire

#### Incidence and prevalence of injuries in some sports-review

Injuries are an inherent risk associated with sports participation, impacting the health and performance of athletes across various disciplines. This review aims to provide a comprehensive analysis of the incidence and prevalence of injuries in selected sports, shedding light on the magnitude and patterns of injuries observed within each sport. To conduct this review, an extensive search was performed across electronic databases and relevant sports medicine literature. The findings reveal significant variability in injury rates and patterns among different sports. Sports such as football, handball, and volleyball, exhibit higher overall injury rates, with musculoskeletal injuries being most prevalent. Conversely, sports such as running, and cycling tend to demonstrate lower injury rates, with a focus on overuse injuries. Common injury types observed across sports include sprains, strains, fractures, contusions, and concussions, while body regions such as the lower extremities, head and neck, and upper limbs are frequently affected. Various factors contribute to the occurrence of injuries in sports, including player age, gender, skill level, training intensity, equipment usage, playing surface, and rule modifications. Contact and collision sports carry a higher risk of traumatic injuries compared to non-contact and individual sports. Understanding the incidence and prevalence of injuries in different sports is crucial for the development and implementation of injury prevention strategies. This review highlights the need for tailored approaches that address sport-specific risk factors, focusing on athlete education, proper training techniques, equipment modifications, rule changes, and enhanced medical support.

Gurau, T.V., 1, Musat, C,L., Voinescu, D.C., Anghel, L., Gurau, G., Postelnicu, M.G., Stefanescu, C.A., Onu, I., Corciova, C., Iordan, D.A. (2024). <u>Incidence and prevalence of injuries in some sports-review</u>. Balneo and PRM Research Journal, 14(4).

#### Editorial: Reviews in elite sports and performance enhancement

The current global publishing trend has witnessed a simultaneous rise in both original research papers and literature reviews. The expansion of evidence-based practice has notably resulted in a growing variety of review types in recent years. It is indisputable that the COVID-19 pandemic has significantly impacted various aspects of life, including the publishing landscape. In sports science, its effects on the volume of scholarly publications, particularly the number of review papers, have been substantial, notably between 2020 and 2022. This can be attributed in part to disruptions in access to laboratories, gyms, and pitches, allowing practitioners more time to undertake work-related activities that were often not prioritised. This Research Topic aims to highlight recently published "Reviews in Elite Sports and Performance Enhancement.

Girard O. & Bishop C. (2024). Editorial: Reviews in elite sports and performance enhancement. Frontiers in Sports and Active Living, 5.

#### Retour au sommaire

#### Sports injuries of stomatognathic system with reference to prevention and first aid - review article

Introduction: Engaging in sports is crucial for maintaining and enhancing the health of both children and adults. However, it can also be a cause of injuries with temporary or permanent consequences. The primary causes of sports injuries are mechanical forces acting during intense physical exertion. A significant number of sports injuries involve the stomatognathic system, often occurring suddenly and unexpectedly, accompanied by pain and bleeding. The complexity of injuries depends on the type of sport, the athlete's age, and the force's strength, leading to serious aesthetic, functional, psychological, and economic consequences for the injured. Purpose of the study: The purpose of the study is to highlight the significant role of sports in physical and mental health, while also addressing potential injuries that may occur during sports activities, with a particular focus on dental and surrounding tissue injuries. The study emphasizes the importance of preventing traumatic and non-traumatic damage to dental tissues and surrounding structures through the mandatory use of sports mouthguards. Methods: This review article focuses on enriching knowledge about dental traumas caused by sports injuries, their prevention, and trends in the therapy of dentoalveolar traumas. Results: In this work, the authors aimed to briefly summarize, analyze, and present the latest available information from contemporary literature dealing with dentoalveolar traumas, including their causes, diagnosis, and treatment, while emphasizing the importance of prevention. Conclusion: Sports injuries, with a specific emphasis on injuries to the stomatognathic system, whether occurring in recreational or competitive sports, require a serious approach in terms of prevention, diagnosis, and therapy. The education of sports professionals, coaches, sports doctors, parents, and athletes themselves on providing first aid for the occurrence of dentoalveolar traumas is of great importance.

Šečić, S., & Hardaga-Muzurovic, A. (2023). <u>Sports injuries of stomatognathic system with reference to prevention and first aid – review article</u>. Homosporticus.

#### Mental health among elite youth athletes: A narrative overview to advance research and practice

Context: Participation in sports during youth is typically beneficial for mental health. However, it is unclear whether elite sport contexts contribute to greater risk of psychological distress or disorder. The aims of this paper are to highlight conceptual issues that require resolution in future research and practice, and to examine the key factors that may contribute to the mental health of elite youth athletes (EYAs). Evidence Acquisition: A narrative overview of the literature combined with the clinical and research expertise of the authors. Results: EYAs experience a range of biopsychosocial developmental changes that interact with mental health in a multitude of ways. In addition, there are various sport-specific factors that contribute to the mental health of EYAs that may become more prominent in elite contexts. These include - but are not limited to - patterns relating to athlete coping and self-relating styles, the nature of peer, parental, and coach relationships, organizational culture and performance pressures, and mental health service provision and accessibility. Conclusion: A range of critical factors across individual, interpersonal, organizational, and societal domains have been shown to contribute to mental health among EYAs. However, this evidence is limited by heterogeneous samples and varied or imprecise terminology regarding what constitutes "youth" and "elite" in sport. Nevertheless, it is clear that EYAs face a range of risks that warrant careful consideration to progress to best practice principles and recommendations for mental health promotion and intervention in elite youth sport.

Walton, C. C., Purcell, R., Henderson, J. L., Kim, J., Kerr, G., Frost, J., ... & Tamminen, K. A. (2024). <u>Mental health among elite</u> youth athletes: A narrative overview to advance research and practice. Sports Health, 19417381231219230.

## 2. Développement du loisir

#### How has the child-friendly cities initiative promoted public spaces for children?

The Child-Friendly Cities Initiative was developed nearly 30 years ago to recognize cities for their work on improving the lives of urban children based on the rights of the child. There is considerable international interest in this initiative even today. However, many planners and built environment professionals feel the initiative has not done much to provide public spaces and independent mobility for children. This paper engages with such criticism and investigates the drivers and nature of public space interventions in recognized child-friendly cities in 24 countries and demonstrates how the initiative has promoted public spaces for children through policies, planning, and programming efforts.

Chatterjee, S. (2023). How has the child-friendly cities initiative promoted public spaces for children? Children, Youth and Environments, 33(3), 1-34.

#### Retour au sommaire

### Leisure trends "an enquiry in the past two decades to understand the transition in leisure trends

Recreation and leisure can be found in any location where people congregate to play, enjoy, or rest. Cities, towns, small villages, the countryside, and urban canters all provide opportunities for recreation. Leisure affects people of all ages, stages of life, cultures, social classes, and genders through personal experiences or observations, and it is used to identify people who engage in recreational activities or spend time in natural settings. Leisure has a prominent role in the mental and physical health of the human being. Leisure activities are being ignored by the people for different reasons, while building the future cities we have to introduce new domain leisure while planning and designing cities. This study focuses on exploring significant trends in the domain of leisure using the database from the Elsevier Scopus and analyzing the database using bibliometric analysis to evaluate the research components. The study will serve as a fundamental basis for understanding the different trends in the research domain. This bibliometric analysis combines information from various research areas, adds to the categorization of the literature review on the subject, and provides information to help understand changing trends in the leisure domain which can be used in building up the future cities.

Ranjan, R., & Puneeth, D. S. <u>Leisure trends "an enquiry in the past two decades to understand the transition in leisure trends."</u>. Design Towards Disaster Resilient Community: A Preliminary Study on the Potential Use, 70.

#### How to achieve a healthy city: a scoping review with ten city examples

This scoping review of the literature explores the following question: what systematic measures are needed to achieve a healthy city? The World Health Organization (WHO) suggests 11 characteristics of a healthy city. Measures contributing to these characteristics are extracted and classified into 29 themes. Implementation of some of these measures is illustrated by examples from Freiburg, Greater Vancouver, Singapore, Seattle, New York City, London, Nantes, Exeter, Copenhagen, and Washington, DC. The identified measures and examples indicate that a healthy city is a system of healthy sectors. A discussion section suggests healthy directions for nine sectors in a healthy city. These sectors include transportation, housing, schools, city planning, local government, environmental management, retail, heritage, and healthcare. Future work is advised to put more focus on characteristic 5 (i.e., the meeting of basic needs for all the city's people) and characteristic 10 (i.e., public health and sick care services accessible to all) of a healthy city.

Abbas, Z.B. & Ayyoob, S. (2023) How to achieve a healthy city: a scoping review with ten city examples. Journal of Urban Health.

#### Retour au sommaire

#### Smart cities for people with disabilities: a systematic literature review and future research direction

Smart cities are promising communities that leverage intelligent technologies to connect citizens through internet devices, thereby improving their quality of life. This is especially crucial for citizens with disabilities, who face significant challenges in urban living. This paper reviews, summarises, and synthesises the current literature on smart cities for people with disabilities. The analysis is grounded in a sociotechnical framework and the Quadruple Helix Model, with a focus on effective collaborations among various stakeholders to provide sustainable and inclusive smart cities. In examining 83 peer-reviewed articles, our literature analysis reveals that, despite the growing number of studies on smart cities, very few have explored the challenges and opportunities for people with disabilities from a socio-technical and collaborative perspective. Accordingly, we call for interdisciplinary research to understand how smart technologies should be developed, implemented, and used to address the special needs of people with disabilities and to build inclusive and technologically advanced smart cities. This study contributes to both research and practice by highlighting the underexamined area of inclusive smart cities. It provides a conceptual framework that can serve as a guideline to address and enhance the understanding of the critical role of smart cities in fostering social inclusion.

Zhou, S., Loiacono, E.T. & Kordzadeh, N. (2023) <u>Smart cities for people with disabilities: a systematic literature review and future research directions</u>, European Journal of Information Systems.

#### Behavioural interventions designed to increase commuter cycling: A systematic review

The societal reliance on motorised transport is negatively affecting the health of humans and the environment. Active travel provides a unique solution to both issues by removing the number of motorised vehicles on the road, while also increasing physical activity rates. Interventions that encourage greater uptake of active travel are considered to be highly beneficial to society. This systematic review of the literature sought to provide evidence to answer the question which behavioural interventions increase commuter cycling? Five databases were searched to identify articles that tested a behavioural intervention to increase commuter cycling. Article parameters were defined from the literature and in consultation with the research team. Study selection, quality appraisal and data extraction were undertaken using Covidence. The final 25 articles revealed that personalised travel plans and mobile phone-based platforms were the most common interventions. Unvalidated travel surveys were the most widely used mode of data collection. Modest increases in commuter cycling were observed across studies; however, the heterogeneity of study designs and reporting of results did not allow aggregation of findings. This review highlights the need for high quality behavioural science research into active travel. This will assist us to better understand the most effective interventions that increase levels of commuter cycling, subsequently improving environmental and human health.

Larsen, R., Begg, S., Rudner, J. & Verrinder, G. (2024). <u>Behavioural interventions designed to increase commuter cycling:</u>
<u>A systematic review.</u> Transportation Research Part F: Traffic Psychology and Behaviour, 100, 388-401.

#### Retour au sommaire

#### The role of technological innovations in diversification of recreational activities: interview with chatgpt

Individuals, who act in line with new searches and discoveries, increase their leisure time evaluations day by day. Recreational activities, which closely affect individuals' quality of life and perceived well-being, can also offer innovative opportunities by presenting different variations. However, adopting the traditional approach and performing the known activities frequently may prevent the development of new recreational activities. With the increase in economic income and leisure capacity, it is seen that participation in recreational activities has accelerated in the 21st century. In this context, although recreational enterprises want to gain competitive advantage by increasing the number of activities, they often face a limited variety of recreational activities. At this point, artificial intelligence supported applications, one of the most important inventions brought by technology, are used in recreational activities as well as in all areas of tourism. In particular, programs such as ChatGPT, one of the artificial intelligence applications (chat robot), can offer new suggestions and ideas for activity diversity. From this point of view, important findings were obtained by asking the questions of what innovative recreational activities can be with the ChatGPT software. ChatGPT, which presents many innovative proposals, especially virtual museum events, e-sports, adventure recreation, digital storytelling, interactive theater, meditation and various touristic recreations, is an inspiring resource for recreational diversification. It is foreseen that innovative ideas will be formed in the relationship between artificial intelligence and tourism by conducting similar studies in other service areas of tourism. It is recommended to develop studies on the subject by drawing attention to the benefits of artificial intelligence to scientists and sectoral stakeholders.

Barakazı, E. (2023). <u>The role of technological innovations in diversification of recreational activities: interview with chatgpt</u>. Journal of Gastronomy Hospitality and Travel (JOGHAT).

#### Active aging with leisure and free time activities for a better quality of life

The objective of this research was to study the relationship between the participation of the elderly in learning programs in cultural activities developed in senior centers. The research was quantitative, cross-sectional and relational; a probabilistic sample was applied to select 340 elderly people over 65 years of age, corresponding to a senior center in Madrid. The instrument used to collect information consisted of 20 questions grouped into 4 dimensions. The results indicate that the elderly are satisfied with the new cultural learning offered by the senior centers. 72% of the people surveyed, contribute to improve learning through these activities. The research provides possible improvements to prevent loneliness, improving the quality of life. It is suggested to improve the learning programs in cultural activities to achieve greater participation in society. This research suggests possible improvements in areas that will help prevent dependency, such as those where there is greater demand from users. Specific plans to increase the participation of men in the workshops held in the senior centers are suggested as suggestions for improvement.

Tena, M. J. F., Deocano-Ruiz, Y., LLamas-Salguero, F., & Morales, J. J. (2024). <u>Active aging with leisure and free time activities for a better quality of life</u>. Retos, 51, 1496-1501.

#### Invariance de mesure de l'échelle de satisfaction à l'égard des loisirs selon le sexe, l'état civil et l'âge

Background: Leisure satisfaction is the degree of positive perception and emotions that an individual acquires as a result of participating in leisure time activities, and it has an important function in maintaining and increasing leisure time participation. Some studies on leisure satisfaction address the comparisons between groups. These studies are based on the premise that the measurement tool used to reveal the between-group diferences measures the same feature in subgroups. Objective: In this study, we investigated whether the diferences between the groups were due to the measurement tool by examining the psychometric properties of the leisure satisfaction scale. Methods: The study sample comprised 2344 exercising individuals, including 1228 (52.3%) women and 1116 (47.6%) men. The structural invariance of the leisure satisfaction scale, developed by Beard and Ragheb (Journal of Leisure Research 12:20-33, 1980) and adapted into Turkish by Gökçe and Orhan (Spor Bilimleri Dergisi 22:139–145, 2011), was tested through multiple-group confrmatory factor analysis. Results: The results indicated that the structural and metric invariance conditions were fulfilled across gender, marital status, and age in all subscales of the leisure satisfaction scale. Scalar invariance was obtained in educational and social satisfaction subscales across gender and in physical satisfaction subscale across marital status. Conclusion: The study provides evidence for the future comparisons according to these three variables, indicating that the diferences obtained will result from the real diferences between groups rather than the measurement tool properties.

Köse, E., Gökçe, H., Toktaş, N. et al. <u>Invariance de mesure de l'échelle de satisfaction à l'égard des loisirs selon le sexe, l'état civil et l'âge</u>. Psique. Réfl. Critique. 37, 1 (2024).

#### Retour au sommaire

#### The influence of serious leisure, training, and consumption on subjective well-being for sport event participants

People pursue leisure activities like running because it makes them feel good and Stebbins (1992) suggests that serious leisure predicts subjective well-being (SWB). However, it is unclear whether serious leisure and/or its behavioural consequences such as increased consumption, event participation or training, explain varying levels of SWB. Some of these behavioural consequences have adverse environmental impacts, and a trade-off exists between negative environmental impacts and increased levels of SWB. This study surveyed 933 runners about their level of serious leisure, consumption patterns, training, event participation, and SWB. CFA and SEM are used to test the direct effects of serious leisure and the role of selected mediators to understand their effects on SWB. The study concludes that serious leisure itself has no significant direct effect on SWB. However, athletes' engagement in training has direct positive effects on SWB. Furthermore, serious leisure, training and event participation increase other types of consumption, such as shoes, electronic equipment, cloths, etc. which have, however, no significant effect on SWB. These results advise organisers of leisure activities, such as event organisers, how to develop sustainable, yet valuable event experiences.

Armbrecht, J., Mehdizadeh Dehkordi, M., & Lundberg, E. <u>The influence of serious leisure, training, and consumption on subjective well-being for sport event participants</u>. Scandinavian Journal of Hospitality and Tourism, 1-18.

#### Exploring leisure and municipal government public relations for community: A case example of parks and recreation

The concept of community expresses a variety of responsibilities that public relations has in building connections, good will, and wellbeing amongst collectives of people. Community also parallels many U.S. expectations of government; however, public relations has few studies that investigate the collaboration between government and citizens or how different government services (e.g., public works, public health, building enforcement, etc.) influence community building. Specifically, parks and recreation has been overlooked in the public relations literature as citizens and government collectively support these lifelines of community wellbeing and social connectedness. Through qualitative analysis of focus groups with city residents and interviews with city parks and recreation personnel, I present thematic findings that explicate how citizens and city staff engage in community building and the specific role that leisure plays in community building processes. Lastly, I offer implications for public relations theory that argue to shift local community and governance theory to be citizen-centered and use the concept of family to explicate the function of community in small municipal contexts.

Aghazadeh, S. A. (2024). Exploring leisure and municipal government public relations for community: A case example of parks and recreation. Public Relations Review, 50(1), 102410.

Retour au sommaire

# 3. Développement du plein air

#### Adaptive outdoor physical activities for adults with mobility disability: A scoping review

Outdoor physical activity (PA) contributes to the physical and mental health and well-being of individuals with a mobility impairment. However, individuals are commonly excluded from outdoor PA because of accessibility challenges. No reviews summarizing evidence on factors that facilitate/hinder participation and inclusion of individuals with mobility disabilities in adaptive outdoor PA were identified. . This makes it challenging to establish the key components for implementing inclusive outdoor PA interventions. A scoping review was conducted to identify barriers and facilitators to participation in adaptive outdoor PA and identify suggestions for adaptive outdoor PA design. Methods: A scoping review of qualitative and quantitative studies was conducted based on the methodological framework of Arksey and O'Malley with modifications by Levac. Barriers and facilitators were categorized into four levels based on a Social Ecological Model (SEM). Suggestions for interventions designed to overcome accessibility issues of outdoor PA were classified based on Universal Design (UD). Results: Thirty-seven factors regarding barriers and facilitators of outdoor adaptive PA were extracted from 19 studies published between 2002 and 2023. Barriers and facilitators were identified primarily in four levels of the SEM, including intrapersonal, social-environmental, physical-environmental, and policy-related. Eleven design suggestions were identified and categorized according to the seven principles of UD. This study identified gaps in the presented barriers and facilitators and the design suggestions of the included studies, mainly at the social and environmental level, such as a lack of innovation in program delivery and logistics. Conclusion: This study identified gaps in knowledge about facilitators and barriers to outdoor adaptive PA and in the design of interventions addressing them. Future research should focus on the strategies addressing these gaps by involving individuals with mobility disability in designing interventions to gain a better insight into their needs.

Derakhshan, P., Miller, W., Mortenson, B., Bundon, A., Labbé, D. & Bolt, T. (2023). <u>Adaptive outdoor physical activities for adults with mobility disability: A scoping review</u>. Frontiers in Rehabilitation Sciences, 4.

# A scoping review of urban planning decision support tools and processes that account for the health, environment, and economic benefits of trees and greenspace

Soundscape and landscape are the internal perceptual experiences of the acoustic and visual environments. They are increasingly recognised as design elements that can promote healthy cities and population health, and a deeper understanding of them is important for policymaking. This review explores the influence of the soundscape and natural landscape on psycho-physiological health, including their interaction, and we used the term 'sensescape' to refer to the combination of the perceptual influences of soundscape and natural landscape on people. Using ISI Web of Science, PubMed, ProQuest Central, MEDLINE, Scopus, and Google Scholar, a literature search was undertaken on the therapeutic health implications of landscape and soundscape on urban milieu and residents. The results demonstrated that exposure to natural sound and visual environments was associated with slower heart rates and greater parasympathetic nerve activation. The presentation of complex audio-visual environments demonstrated that visual signals stimulate the brain area that activates physio-psychological relaxation. It was also found to be beneficial tools for participatory soundscape and landscape planning. Overall, the combined effect of natural landscape and soundscape may improve psychophysiological health and should be considered when considering future planning and management of urban environments. Practical imlications, limitations, and future research directions is also discussed.

Tefera, Y., Soebarto, V., Bishop, C., Kandulu, J., & Williams, C. (2024). A scoping review of urban planning decision support tools and processes that account for the health, environment, and economic benefits of trees and greenspace. International Journal of Environmental Research and Public Health, 21(1), 48.

#### Retour au sommaire

#### Evaluation of open and green space Systems in the context of urban livability

Urban that has overgrown in recent years have affected human lifestyle and ecological balance in a negative way. Open and green spaces decreased. With this, unhealthy urban conditions occur. Therefore, urban is becoming more unlivable. The aim of this study, starting from the problem of insufficient/unqualified open and green areas in urban, is to show that cities are more livable when the open and green spaces system is designed. The "top 10 livable cities" ranking the world cities are listed by 6 different institutions and the same cities included in this list are selected. The open and green areas of 4 different selected cities were examined. In the scope, two basic concepts are based on: open-green space systems and urban livability. As a result of the study, it has been seen that open and green space systems affect cities more livable. Therefore, open and green areas are planned systematically for maximum benefit with a sustainable approach. However, systems also need new approaches at some points. At this point, a hypothetical open green space system is proposed in this study. The concept of urban liveability and open and green spaces, an index of urban liveability, are explained. Then, open and green space systems in the literature are clarified with examples. To show the relationship between urban liveability and open green spaces, the research results done by different institutions, the most overlapping cities have been selected according to the top 10 list of most liveable cities list. The value of this study to make itself original and the literature contribution is that at the end of the research, a new open and green system was suggested based on the open and green systems in the literature.

Hizli, O. & Aktan, E.O.A. (2023). <u>Evaluation of open and green space Systems in the context of urban livability</u>. International Journal of Architecture and Planning, 11(2).

#### Understanding older adults' participation in outdoor adventure activities: a scoping review

Outdoor adventure activities are increasingly popular among older adults. We conducted a scoping review to examine trends in the scholarly literature on this topic. Several interdisciplinary databases were searched, and studies were independently screened for eligibility during two rounds of review (title and abstract, and full text). Our review included 34 peer-reviewed articles with the full text available in English that substantially described outdoor adventure programming for older adults, and/or older adults' experiences of, or attitudes towards outdoor adventure activities. Results of this scoping review suggest that participation in outdoor adventure activities can contribute significantly to the wellbeing of older adults. However, due to strict alignment to the ideals of successful aging present in many articles, the potential for an 'authentic aging' lens to explore the diverse experiences of aging is discussed. Further research should focus on recruiting more diverse participants and attempt to uncover potential barriers and facilitators (physical, economic, geographic, etc.) to participation.

Smith, E.S. & Dalmer, N.K.(2023). <u>Understanding older adults' participation in outdoor adventure activities: a scoping review</u>. Journal of Adventure Education and Outdoor Learning.

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# 4. Développement de l'activité physique

### The effects of ICT-based interventions on physical mobility of older adults: A systematic literature review and metaanalysis

Systematic literature review and meta-analysis were conducted to integrate and analyze intervention studies dealing with the effects of information and communications technology- (ICT-) based interventions on the physical mobility of older adults in the community. The PubMed/MEDLINE, Embase, CINAHL, and Cochrane CENTRAL databases were searched for studies published from January 2000 to December 2022. We used the Risk of Bias 2 (RoB 2) tool to evaluate the quality of the randomized controlled studies in the systematic review. The meta-analysis was performed using a random-effects model. The model was used to calculate the standardized mean difference (SMD) and 95% confidence interval (CI) for both effect measures. 12 tests were used to measure the presence of heterogeneity. Thirty-seven randomized controlled trials were included (2,419 intervention participants), of which 23 were included in the metaanalysis. ICT interventions significantly improved Timed Up and Go (TUG) as a marker of physical mobility variable in older adults (SMD = -0.33, 95% CI: -0.57 to -0.10, p=0.005, I2 = 74.7%). A sensitivity analysis was performed on subgroups, and interventions were found to be effective in improving TUG in the exergame group (SMD = -0.40, 95% CI: -0.72 to -0.08, p < 0.001, I2 = 75.0%) and in the exergame with virtual reality (VR) group (SMD = -0.33, 95% CI: -1.01 to 0.35, p < 0.001, I2 = 91.0%) but both groups showed high heterogeneity. A meta-analysis was also performed on Short Physical Performance Battery (SPPB) but statistically significant results were not found (SMD = -0.19, 95% CI: -0.61 to 0.23, p=0.375, I2 = 87.7%). For the Berg Balance Scale (BBS), the post-intervention scores were significantly better than baseline (SMD = 1.52, 95% CI: 0.48 to 2.57, p=0.004, I2 = 93.5%). However, the number of studies included in the meta-analysis was small and heterogeneity was high, so follow-up studies are needed. This study confirmed that exergames, telecommunication, ehealth, information applications, and robots were used as effective ICT-based interventions for improving the physical mobility of older adults. It is necessary to develop and apply more diverse ICT-based interventions that will prevent impairments of mobility and encourage older adults to live more independently, with a higher quality of life, based on extensive research on ICT-based interventions.

Kim H, Kim G, Kim Y, & Ha J. (2023). <u>The effects of ICT-based interventions on physical mobility of older adults: A systematic literature review and meta-analysis</u>. International Journal of Clinical Practice, 2023,

#### The social return on investment of physical activity and nutrition interventions ascoping review

Scarcity of resources and mounting pressures on health systems make it critical to evaluate new and existing public health interventions related to physical activity and nutrition. The Social Return on Investment (SROI) framework has gained prominence for capturing traditional variables such as economic costs and returns, as well as wider beneficial social and environmental outcomes. A scoping review was conducted to present the existing evidence on the SROI of physical activity and nutrition interventions, demonstrating the capture of the wider benefits of these interventions. Existing peerreviewed evidence and grey literature was collated to identify physical activity and nutrition interventions that were evaluated using the SROI framework between January 1996 up until February 2022. Only literature published in the English language, interventions that were conducted in high-income countries were considered for inclusion. Study information and economic data was entered into a pre-prepared data extraction sheet and eligible studies were quality assessed using a 12-point quality assessment framework for SROI studies. This review identified a total of 21 SROI studies, with only four deriving from peer-reviewed literature sources. In total, 18 studies evaluated physical activity interventions, one study was purely focused on nutrition, whereas the two remaining studies presented a mix of physical activity and nutrition. The majority of studies derived from the United Kingdom (n=16) with very few of the studies published prior to 2010 (n=1). In total, four studies were classified as low quality based on the 12-point quality assessment framework used for this review. Outcomes of the relevant studies show that the benefits of these interventions have added value to families, communities and the wider environments of the target groups. This scoping review is adding to research conducted to understand the wider value of public health interventions such as physical activity and nutrition interventions using the SROI framework. This is important so that the development and implementation of public health interventions have the greatest value to people and society, which also benefits decision-makers to effectively and sustainably allocate scarce resources.

Stielke, A., Ashton, K., Cotter-Roberts, A. & Dyakova, M. (2023). <u>The social return on investment of physical activity and nutrition interventions a scoping review</u>, Frontiers in Sports and Active Living, 5.

#### Retour au sommaire

#### Maintaining health in daily life—is active travel the solution?

Physical inactivity is a global public health challenge. At the same time, the societal transformation toward a sustainable and active lifestyle can be observed. Active travel (AT) is one physical activity (PA) domain and combines healthy and sustainable daily behavior. However, it is still unclear whether assumed associations between AT and health are resilient for objective and subjective health outcomes. Since published research on AT has been growing during the last decade, this scoping review aimed to update and summarize the existing evidence. Therefore, a scoping review was conducted in PubMed, Web of Science, ScienceDirect, and Cochrane Library, following PRISMA guidelines. In all, 35 papers including 4,857,918 individuals (age range: 18–93 years old) were included. AT is strongly associated with health dimensions with a great body of knowledge showing strong associations between AT and reduced risks for noncommunicable diseases (NCD), especially in comparison to non-AT. Thus, AT can play an important role to prevent the increasing prevalence of NCD. There is a limited amount of research available on health-promoting factors and subjective health. Extracted studies suggest positive connections with AT. Mostly, cycling as a form of AT seems to have a more significant positive association with health compared to walking. Longitudinal studies further support and reinforce these findings.

Tittlbach, S., Brockfeld, A., Kindig, S. & Herfet, M. (2023). <u>Maintaining health in daily life—is active travel the solution?</u>. German Journal of Exercise and Sport Research.

#### Personalization characteristics and evaluation of gamified exercise for middle-aged and older people: A scoping review

Many studies have shown that personalized exergames have a positive effect on promoting regular and proper exercise. However, there is no consensus on the design characteristics and evaluation of exergames. This systematic review of published research literature aimed to explore the general characteristics, personalization characteristics, and evaluation of personalized exergames for middle-aged and older people. We screened published studies in the Web of Science, Scopus, PubMed, ACM, and IEEE Xplore databases, extracted data, and performed a thematic analysis according to the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews checklist. Three main themes and nine subthemes were generated from 24 included papers. Moreover, a personalization model (FACTS) and evaluation system (PMSS) of exergames were developed. Personalized exergames had potential positive effects on motivating middle-aged and older people to exercise and improve their health, particularly physical, mental, and social health. However, more fine-grained studies on personalized exergames are necessary in the future.

Ren, L., Yan, J., Zhu, Z., & Du, M. (2024). <u>Personalization characteristics and evaluation of gamified exercise for middle-aged and older people</u>: A scoping review. Journal of Aging and Physical Activity, 1(aop), 1-13.

#### Retour au sommaire

# The relationship between gamified physical exercise and mental health in adolescence: An example of open Innovation in gamified learning

Interest in gamified physical activity has been driven by its potential to benefit student mental health. Integrating gamified practices for mental health improvement represents a significant innovation within multidisciplinary approaches to enhancing mental well-being. This review follows the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines and was conducted using the Scopus and Web of Science (WOS) databases, primary sources for education-related studies. Thirteen papers were analyzed, yielding important insights into the relationship between gamified physical activity and mental health. The findings indicate that gamified physical activity positively influences adolescents' mental health and well-being. Additionally, there is a need for improved application and game design to enhance learning within school contexts. Tailoring exergames to fit specific disciplines and school-related characteristics can promote healthier mobile application usage and offer significant benefits for the mental health of young individuals. The difference between this study and previous ones is that it focuses on mobile applications for encouraging active living to improve quality of life and mental health.

Pérez-Jorge D, Martínez-Murciano MC, Contreras-Madrid AI, Alonso-Rodríguez I. <u>The relationship between gamified physical exercise and mental health in adolescence: An example of open Innovation in gamified learning</u>. Healthcare. 2024; 12(2):124.

#### Older LGBT+ adults and physical activity: A systematic review of qualitative and quantitative data

Introduction: The present study represents the first systematic review summarizing existing publications on older sexual and gender minority (LGBT+) people's engagement with physical activity (PA) aged 65 and over. Methods: Relevant articles were systematically searched in four scientific databases (i.e., PsychArticles, PsychInfo, Pubmed, and Web of Science) in March 2023. We included original articles published after 1968 with relevant keywords associated with "PA", "older adults", and "LGBT+identity". Of the 887 records identified, 53 articles were included in the systematic review. Results: Studies were critically reviewed according to participants' subjectivity considered in the publications: (a) sexual minority (LGB+) identities; (b) sexual and gender minority (LGBT+) identities; (c) transgender and gender-diverse identities; (d) gay and bisexual male identities; and (e) lesbian and bisexual female identities. The most frequent research areas, taking together all the five identity categories considered in the present review, were the differences between LGBT+people and cis-heterosexual people, the discrimination and homophobia/transphobia in sport-related contexts, and the competent interventions and aging well in LGBT+older adults. Conclusions: Findings suggest a lack of information regarding PA in older LGBT+aged 65 and over. Future research should investigate the barriers and enablers of PA in older LGBT+people. Policy Implications It is mandatory to promote regular exercise to reduce health disparities between older LGBT+individuals and their cis-heterosexual counterparts. The policy and environmental implications of the findings for older LGBT+people are discussed.

Pistella, J., Baiocco, R., Antoniucci, C., Alessandri, G., Alivernini, F., Borghi, A. M., Filosa, L., Fini, C., Palombi, T., Tavolucci, S., & Lucidi, F. (2024). Older LGBT+ adults and physical activity: A systematic review of qualitative and quantitative data. Sexuality Research and Social Policy.

## 5. Sécurité et intégrité dans les sports

En collaboration avec Chaire de recherche Sécurité et intégrité en milieu sportif.



A delphi study to determine international and national equestrian expert opinions on domains and sub-domains essential to managing sporthorse health and welfare in the olympic disciplines

The public is increasingly questioning equestrianism's social license to operate. While the focus historically centered on horseracing, increased scrutiny is now being placed on how dressage, showjumping, and eventing are addressing equine management and welfare concerns. Nominated equestrian federation and equestrian organization experts (n = 104) directly involved in international and/or national-level horse sports took part in a four-stage, iterative Delphi to obtain consensus on what factors should be considered essential to manage sporthorse health and welfare. Five core domains were agreed as essential: training management, competition management, young horse management, health status and veterinary management, and the horse-human relationship. Two further domains: stable and environmental management, and welfare assessment were rated as important but not essential, as most respondents felt that these areas were already managed well. Participants felt increased education and guidance combined with further policy development and regulation are needed to support stakeholders to optimize sporthorse management. An appetite to engage with research to generate evidence that promotes sporthorse welfare was evident. The development of a sporthorse welfare charter and evidence-based guidelines to inform the management and monitoring of sporthorses' health and welfare are recommended to provide horses with a good life and to safeguard the future of equestrian sports.

Williams, J. M., Berg, L. C., Clayton, H. M., Kirsch, K., Marlin, D., Randle, H., Roepstroff, L., Oldruitenborgh-Oosterbaan, M. S. van, Weishaupt, M. A., & Munsters, C. (2023). <u>A delphi study to determine international and national equestrian expert opinions on domains and sub-domains essential to managing sporthorse health and welfare in the olympic disciplines.</u> *Animals*, 13(21), 3404

#### Retour au sommaire

#### "It's all part of the culture": Undergraduate students' experiences of banter in university sports clubs and societies

Recent research has focused on students' experience of banter in the general university setting. However, these experiences may differ when specifically focusing on university students' interactions in sports clubs and societies. The present study explored undergraduate students' understanding and experiences of banter in sports clubs and societies through five focus groups (n = 24; 18–23 years, 5 male, 19 female) at one UK university using semi-structured interviews and vignettes. Thematic analysis identified three key themes: "It's all part of the culture", banter to excuse inappropriate behaviour, and a question of boundaries. Discussions highlighted banter was accepted and expected, but there was a sense of 'banter fatigue'. There was awareness that banter could be used to mask harmful behaviour such as hazing and inappropriate sexual behaviour. Students also highlighted that boundaries were important when using banter, discussing how repetition can have a negative impact on the target of the banter. The study contributes to the limited literature exploring the use and perceptions of banter by students in extracurricular activities at university.

Abell, L., Buglass, S. L., Betts, L. R., & Morohunfola, T. (2023). "It's all part of the culture": Undergraduate students' experiences of banter in university sports clubs and societies. Current Psychology.

#### Masculinity on ice: masculinity, friendships, and sporting relationships in midlife and older adulthood

While researchers have established that young men's sporting friendships are often structured by violence, minimal intimacy, competition, and the degradation of all things feminine (Messner, 1992b), we know relatively little about sporting relationships between older men. Drawing on interviews with and ethnographic research of older male hockey players in two Canadian cities, this article finds that while those in late midlife (ages 54–71) continue to enact patterns of male relationships associated with younger men, those in later life (ages 71–82) break with these masculine patterns. Instead, their team relationships involve joking about themselves in the locker room (instead of mocking others) and an ethic of care. Many defined true or close friendships as those which extended beyond sport. These findings suggest that men's alignment with the dominant sporting masculinity of the young is not static over the life course and may wane in certain arenas as men reach later life.

llain, K. A. (2023). <u>Masculinity on ice: masculinity, friendships, and sporting relationships in midlife and older adulthood</u>. *Journal of Gender Studies*, 1-14.

#### Retour au sommaire

"That's too stereotypical ... I don't want that to be how I identify": Identity and body-related sport experiences of racialized young women athletes in Canada

There is minimal research on the sport experiences of racialized young women athletes in Canada. When studying racialized groups, an inclusive and meaningful approach to research is necessary because ethnicity and race are integral to understanding identity, discrimination, and overall experiences in sport. The purpose of this qualitative description study was to explore the identities and body-related sport experiences of racialized young women athletes in a variety of sports in Canada. Eight racialized young women athletes (ages 14–18 years;  $M_{\rm age}$  = 16.63, SD = 1.19) participated in multiple semi-structured one-on-one interviews and reflexive photography. A reflexive thematic analysis was conducted, and three overarching themes were generated that describe the athletes' identities and body-related sport experiences: (a) Who I am vs who they say I am; (b) My unique body in sport; and (c) The importance of representation. From these findings, three critical factors – intersectionality, discrimination, and diversity – are examined that influence the quality of sport experiences for racialized young women athletes in Canada.

Eke, A. O., Erlandson, M. C., Humbert, M. L., Johnson, K. L., Martin, S. L., & Ferguson, L. J. (2024). <u>"That's too stereotypical"</u> <u>... I don't want that to be how I identify": Identity and body-related sport experiences of racialized young women athletes in Canada</u>. *Psychology of Sport and Exercise*, 70, 102517.

#### Case study on evaluation in the formative dynamics of school soccer: Results-driven arbitrariness

Many primary school pupils broaden their education through extracurricular activities and sports, among which school soccer stands out due to its high levels of participation and its significant impact. The kind of learning imparted fluctuates between *a priori* pedagogical desires and the evaluations that family members and coaches bring to bear on the activity. This study aims to understand these evaluation strategies, their meaning, and their capitalization by schoolchildren. A multiple case study was conducted, making use of participant observation among 101 schoolchildren aged six years (3 girls and 54 boys) and seven years (2 girls and 42 boys) over one academic year and interviews with 21 teachers from their schools. Family members who were involved on site on a daily basis and the teams' 10 coaches are included. 204 observation sessions were recorded, including matches and training sessions. The findings highlight a results-driven arbitrariness in the adults' evaluations, favoring concurrent hetero-evaluation and the comparison of schoolchildren's performances. This gives rise to situations of symbolic violence and to the child's self-evaluation being linked to victory over their peers. This study encourages the planning of evaluative spaces for the co-participation of instructors, families, and schools, taking into account the child's personal growth. To this end, we recommend the harmonization of formative opportunities regardless of schoolchildren's individual skills.

Merino, A., Berbegal, A., Arraiz, A., & Sabirón, F. (2023). <u>Case study on evaluation in the formative dynamics of school soccer: Results-driven arbitrariness</u>. *Sport, Education and Society, 28*(7), 771-784.

#### Retour au sommaire

# Capital game: Male athletes' rationalisation of playing hurt and reproduction of the risk, pain, and injury custom in professional combat sports

As the phenomenon of playing hurt persists in sports, extant literature has explored the risk, pain, and injury custom (RPIC) from diverse angles. However, academic endeavours revealing the agency-structure continuum between individual agents' willingness to play hurt and the capital structure related to the RPIC remain limited. This study aims to investigate professional athletes' health-compromising practice and its underlying mechanism through capital games. Drawing on Bourdieu's theory of practice, we examined two research questions: (a) how does individual athletes' desire for capital justify playing hurt? and (b) how are their capital games connected to the RPIC? Empirical data were collected through semi-structured and photo-elicitation interviews with eight athletes and six coaches (ex-athletes) from three combat sports. The data were interpreted using reflexive thematic analysis. The findings were categorised into two narratives: (a) rationalisation of playing hurt and (b) reproduction of the RPIC. First, our participants continued playing hurt, expecting certain rewards (cultural, social, economic, and performance capital); this profit-seeking aspiration rationalised self-destructive action as an investment to garner social energy in the field. Second, the more athletes immersed themselves in capital games using health as a token, the more prominent the habitus of playing hurt became in the field. This RPIC reproduction mechanism drove former/present athletes' choices to converge into an identical career trajectory, uni-taste, and limited subversion strategy, trapping them in a cycle where the victim becomes another perpetrator of playing hurt. These results are expected to provide sport institutions with insights into building safer sporting environments.

Ryou, J., & Lee, E. (2023). <u>Capital game</u>: <u>Male athletes' rationalisation of playing hurt and reproduction of the risk, pain,</u> and injury custom in professional combat sports. *Qualitative Research in Sport, Exercise and Health*, 1-18.

#### Framing the space of performance enhancing drug use in sport: Nationalism bias in the Australian Media

Sports media regularly frames the issue of performance enhancing drugs (PEDs) through the ideals of morality, nationalism and expected behaviours. This has provided an emergent focus for research studies and extensive and enlightening coverage. This study aims to identify how the Australian media frames PEDs across a diverse range of media sources through the selection of five print and online media publications. Using nationalism bias and media framing, the study researched the prevailing positions, language and framing each publication used to report on individuals associated with, linked to or found to be using, PEDs. The prevalent, 'nationalism-based' reporting emerged, glorifying anti-doping procedures in relation to international athletes and sporting programmes. In comparison, the guilt and severity of punishments given to Australian athletes was questioned. Thus, the reporting presents both a political and biased narrative that is explored further within this manuscript.

Travan, V., Litchfield, C., Osborne, J., & Richards, K. (2023). <u>Framing the space of performance enhancing drug use in sport: Nationalism bias in the Australian Media</u>. *International Journal of Sport Policy and Politics*, *15*(4), 743-755.