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Dr. Rocco Guerriero Research Funding Grant - Exploring sleep characteristics and perspectives in Canadian varsity athletes.

Abstract

Background: Healthy sleep is critical to overall health and wellbeing. In athletes, high-quality and sufficient sleep is necessary for performance optimization and recovery. Student-athletes face additional academic and social pressures and tend to experience poor sleep quality. Yet the sleep characteristics of Canadian varsity athletes is unknown, and therefore an important gap requiring attention.

Objectives: To explore sleep behaviours and perspectives on sleep in Canadian varsity athletes from sixteen teams in nine different sports (Basketball, Hockey, Rowing, Soccer, Badminton, Curling, Golf, Lacrosse and Dance) at Ontario Tech University.

Methods: We will use a mixed method explanatory sequential design. In Phase I, we will collect and analyze quantitative questionnaire data, which will inform the follow-up qualitative phase (Phase II). All varsity athletes from all sports teams at Ontario Tech University will be invited to complete an online questionnaire assessing their sleep behaviours and other lifestyle context. The questionnaire is comprised of five validated scales related to sleep behaviours and lifestyle behaviours. Participants will be asked to provide data on demographics, lifestyle, training and competitive schedules as well as present and past injuries. Qualitative semi-structured interviews will be informed by the completed analysis in Phase I. Any statistical relationships identified will be posed to the participants to explore their perspectives. In Phase II, questions regarding the athlete's perceptions of the importance of sleep to their training and performance and barriers to obtaining sleep will be explored and converged with Phase I results.

Analysis: In Phase I, quantitative data from the online survey will be imported and analyzed using SPSS 22 (IBM corporation, Chicago, IL, USA). Sample characteristics and descriptive statistics of measures will be calculated. Internal consistency scores as measured by Cronbach's alpha will be calculated. To determine significant relationships of sleep duration and overall sleep quality with sociodemographic data, tests of significance will be conducted. All interview data from Phase II will be digitally audio recorded, transcribed verbatim, and then imported into NVivoTM software (QSR International Pty Ltd., Victoria, Australia) for data management. Conventional content analysis, where codes will be inductively created, will be used to collapse into representative categories, and summarized.

Implication: Before sleep interventions can be developed, implemented and evaluated with rigorous evaluative methods, it is important to benchmark the sleep health of individual and team sport athletes across a wide range of sports. Therefore, the present study aims to fill an important gap in the literature and investigate the sleep

quality, duration, chronotype, mental health, as well as the subsequent daytime functioning of Canadian varsity athletes at a single university. Sports chiropractors are well situated to provide sleep education, screen for sleep problems, and intervene appropriately. Sports chiropractors spend time thoroughly evaluating patients, understanding factors that impact athlete recovery and performance. Findings from this study will inform future studies and identify potential areas for sports chiropractors to implement sleep screening as part of their scope of practice, to treat and manage sleep problems in hopes of improving sleep and recovery, and optimizing performance in athletes.

Dr. Melissa Belchos is a Sports Sciences Resident and Undergraduate Faculty at the Canadian Memorial Chiropractic College (CMCC). She is currently in clinical practice at Studio Athletica Sports Medicine, and completing her first year of a Masters of Health Sciences at Ontario Tech University.

This award is funding a portion of her Master's thesis, entitled: Exploring sleep characteristics and perspectives in Canadian varsity athletes. Healthy sleep is critical to overall health and wellbeing. In athletes, high-quality and sufficient sleep is necessary for performance optimization and recovery. Student-athletes face additional academic and social pressures and tend to experience poor sleep quality. Yet the sleep characteristics of Canadian varsity athletes is unknown, and therefore an important gap requiring attention.

