

0.2: 0.1–0.4, $p=0.0002$; males >50 yrs vs females >50 yrs, 0.4: 0.2–0.9, $p=0.0323$), running pace (6-<7 min/km vs 8-<9 min/km, 0.4: 0.2–0.8, $p=0.0062$; 7-<8 min/km vs 8-<9 min/km, 0.5: 0.3–0.9, $p=0.0299$) and route (up vs. down, 0.5: 0.3–0.8, $p=0.0046$).

Conclusion Older females, slower runners and route (down run) were independent factors associated with higher risk of serious/life-threatening MEs in a 90 km ultramarathon. These data will form the basis to design and implement prevention programs to manage risk of sltMEs at these events.

072 PROMOTION OF PARA ATHLETE WELL-BEING IN SOUTH AFRICA (THE PROPEL STUDIES), PART I: PROFILES AND PREVALENCE OF PSYCHOLOGICAL DISTRESS

^{1,2}Marelise Badenhorst, ^{1,2,3}Phoebe Runciman, ^{1,2}James Craig Brown, ^{1,2}Wayne Derman. ¹Institute of Sport and Exercise Medicine (ISEM), Division of Orthopaedic Surgery, Department of Surgical Sciences, Faculty of Medicine and Health Sciences, Stellenbosch University, Cape Town, South Africa; ²International Olympic Committee (IOC) Research Centre, Cape Town, South Africa; ³Department of Sport Science, Faculty of Education, Stellenbosch University, Cape Town, South Africa

10.1136/bjsports-2021-IOC.68

Background There is a paucity of research investigating the mental health profiles of para athletes globally, especially in South Africa.

Objective To describe the mental health profiles of a representative sample of para athletes in South Africa.

Design Descriptive, cross-sectional survey.

Setting National to international level athletes competing in the 2019 National Championships for athletes with impairments.

Patients (or Participants) A total of 124 athletes (93 males; 31 females) with a mean age 26.7 (± 9.2).

Interventions (or Assessment of Risk Factors) Between-group differences were analysed using the Mann-Whitney U test or one-way ANOVA. On completion of the questionnaires, all athletes were given information about mental health support services.

Main Outcome Measurements Mental health was measured with the Trait component of the State/Trait Anxiety Inventory (STAI) and the Kessler Psychological Distress Scale (K-10).

Results The mean score for the STAI was 39.2 (± 9.3) units. A quarter (25%) of all athletes scored 45 and above, in line with scores of patients with a psychological/psychiatric diagnosis. On average, females (35.9 \pm 8.7) had better STAI scores than males (40.3 \pm 9.3; $p=0.02$) and married (32.6 \pm 8.9) athletes had better scores than single (40.2 \pm 8.9; $p=0.002$) athletes. The mean K-10 questionnaire score was 20.4 (± 6.4) units, with no gender difference. However, K-10 scores were significantly higher in single than in married athletes ($U = 415.5$; $p = 0.002$). Using a cut-off score of ≥ 28 and ≥ 16 on the K-10, 12.2% and 76.4% of athletes had symptoms of distress, respectively. Neither scale was associated with level of competition, sport code or impairment type. The K-10 and STAI scores were highly correlated ($r_s=0.64$, $p<0.001$).

Conclusions The study found high rates of psychological distress among para athletes, which is an important first step towards the development of prevention strategies. There is a need to further understand and identify mechanisms affecting mental health in this population.

073 PROMOTION OF PARA ATHLETE WELL-BEING IN SOUTH AFRICA (THE PROPEL STUDIES), PART II: IDENTIFICATION OF SLEEP-ASSOCIATED RISK FACTORS

^{1,2}Wayne Derman, ^{1,2,3}Phoebe Runciman, ^{1,2}James Craig Brown, ^{1,2}Marelise Badenhorst. ¹Institute of Sport and Exercise Medicine (ISEM), Division of Orthopaedic Surgery, Department of Surgical Sciences, Faculty of Medicine and Health Sciences, Stellenbosch University, Cape Town, South Africa; ²International Olympic Committee (IOC) Research Centre, Cape Town, South Africa; ³Department of Sport Science, Faculty of Education, Stellenbosch University, Cape Town, South Africa

10.1136/bjsports-2021-IOC.69

Background Good sleeping habits are necessary for optimal practice and performance, as well as for athlete health. Although the sleep characteristics of elite athletes are well described, research is limited on the sleep profile of similar-level para athletes.

Objective To evaluate sleep quality, sleepiness and chronotype of para athletes in South Africa.

Design Descriptive, cross-sectional survey.

Setting National to international level para athletes competing in the 2019 National Championships.

Patients (or Participants) A total of 124 athletes (93 males; 31 females) with a mean age 26.7 (± 9.2).

Interventions (or Assessment of Risk Factors) Chi-square, with Fisher's exact tests were used to evaluate differences in sleep latency, efficiency, daytime dysfunction, sleep duration, chronotype and sleepiness between 'good' and 'poor' quality sleep groups.

Main Outcome Measurements Pittsburgh Sleep Quality Index (PSQI), the Epworth Sleepiness scale and Morningness-Eveningness Questionnaire (MEQ-SA).

Results Fifty-eight percent (58%) of athletes identified as morning types, while 38% identified as intermediate types. Forty-eight percent (48%) were classified as having 'good' and the remainder as having 'poor' sleep quality. Moderate to severe daytime sleepiness was present in 30% of athletes. Thirty percent (30%) reported sleep duration of 5–6 hours per night, while 5% slept less than 5 hours. Morning types were significantly associated with the 'good' quality sleep group ($p<0.001$, $V=0.35$) and the 'sleepiness' group were associated with the 'poor' quality sleep group ($p=0.04$, $V=0.19$). Additionally, athletes with 'poor' sleep quality were associated with shorter sleep duration ($p<0.001$, $V=.63$), greater sleep latency ($p<0.001$, $V=.62$), lower sleep efficiency ($p=0.001$, $V=.45$), greater daytime dysfunction ($p<0.001$, $V=.40$) and greater sleep disturbances ($p<0.001$, $V.34$).

Conclusions The majority of athletes in this study presented with poor sleep quality. These findings demonstrate a need to identify, address and prevent possible mechanisms affecting poor sleep quality in this population.

074 PROMOTION OF PARA ATHLETE WELL-BEING IN SOUTH AFRICA (THE PROPEL STUDIES), PART III: FACTORS ASSOCIATED WITH MENTAL HEALTH

^{1,2}Marelise Badenhorst, ^{1,2,3}Phoebe Runciman, ^{1,2}James Craig Brown, ^{1,2}Wayne Derman. ¹Institute of Sport and Exercise Medicine (ISEM), Division of Orthopaedic Surgery, Department of Surgical Sciences, Faculty of Medicine and Health Sciences, Stellenbosch University, Cape Town, South Africa; ²International Olympic Committee (IOC) Research Centre, Cape Town, South Africa; ³Department of Sport Science, Faculty of Education, Stellenbosch University, Cape Town, South Africa

10.1136/bjsports-2021-IOC.70